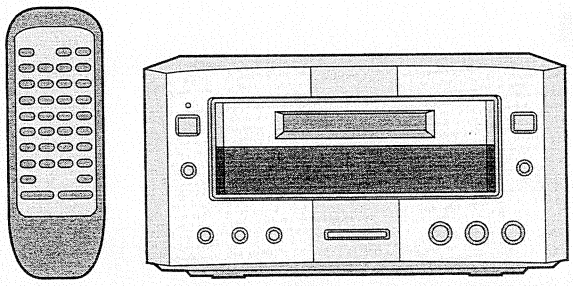
# Technics®

# *Minidisc Deck*

## Operating Instructions

Model No. ***SJ-HDA710***



MiniDisc

EB EG

**Note:**
"EB" on the packaging indicates the United Kingdom.

Before connecting, operating or adjusting this product, please read these instructions completely. Please keep this manual for future reference.

RQT5454-B

# Dear customer

Thank you for purchasing this product.
For optimum performance and safety, please read these instructions carefully.

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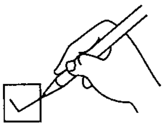
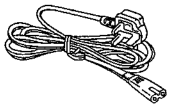
## Accessories

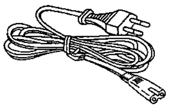


Please check and identify the supplied accessories.

☐ AC mains lead ........ 1



**For United Kingdom**
**(RJA0044-3C)**

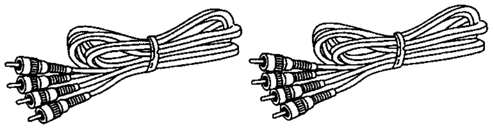


**For others**
**(RJA0043-1C)**

**Note**

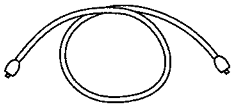
The included AC mains lead is for use with this unit only. Do not use it with other equipment.

☐ Stereo phono cables ........ 2



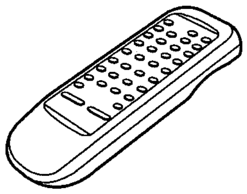
**(RJL2P004B08A)**

☐ Optical fiber cable ........ 1



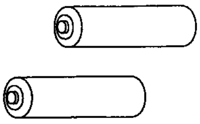
**(RJL1X008B05)**

☐ Remote control ........ 1



**(EUR645274)**

☐ Batteries ........ 2



Use numbers indicated in parentheses when asking for replacement parts.

# Caution for AC Mains Lead

## (For United Kingdom)

**("EB" area code model only)**

For your safety, please read the following text carefully.

This appliance is supplied with a moulded three pin mains plug for your safety and convenience.
A 5-ampere fuse is fitted in this plug.
Should the fuse need to be replaced please ensure that the replacement fuse has a rating of 5-ampere and that it is approved by ASTA or BSI to BS1362.
Check for the ASTA mark ◈ or the BSI mark ♡ on the body of the fuse.

If the plug contains a removable fuse cover you must ensure that it is refitted when the fuse is replaced.
If you lose the fuse cover the plug must not be used until a replacement cover is obtained.
A replacement fuse cover can be purchased from your local dealer.

### CAUTION!

IF THE FITTED MOULDED PLUG IS UNSUITABLE FOR THE SOCKET OUTLET IN YOUR HOME THEN THE FUSE SHOULD BE REMOVED AND THE PLUG CUT OFF AND DISPOSED OF SAFELY.
THERE IS A DANGER OF SEVERE ELECTRICAL SHOCK IF THE CUT OFF PLUG IS INSERTED INTO ANY 13-AMPERE SOCKET.

If a new plug is to be fitted please observe the wiring code as stated below.
If in any doubt please consult a qualified electrician.

### IMPORTANT

The wires in this mains lead are coloured in accordance with the following code:
Blue: Neutral, Brown: Live.
As these colours may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:
The wire which is coloured Blue must be connected to the terminal which is marked with the letter N or coloured Black or Blue.
The wire which is coloured Brown must be connected to the terminal which is marked with the letter L or coloured Brown or Red.

**WARNING: DO NOT CONNECT EITHER WIRE TO THE EARTH TERMINAL WHICH IS MARKED WITH THE LETTER E, BY THE EARTH SYMBOL ⏚ OR COLOURED GREEN OR GREEN/YELLOW.**

**THIS PLUG IS NOT WATERPROOF–KEEP DRY.**

### Before use

Remove the connector cover.

### How to replace the fuse

The location of the fuse differ according to the type of AC mains plug (figures A and B). Confirm the AC mains plug fitted and follow the instructions below.
Illustrations may differ from actual AC mains plug.

1. Open the fuse cover with a screwdriver.

**Figure A**

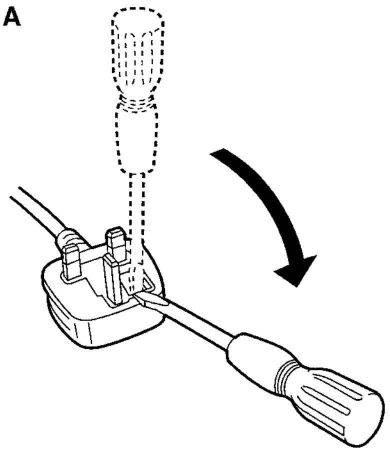
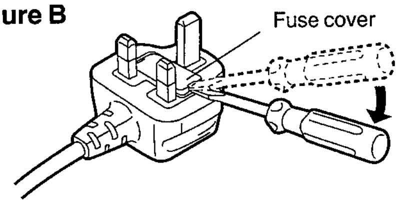


**Figure B**



2. Replace the fuse and close or attach the fuse cover.

**Figure A**

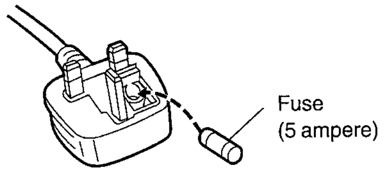
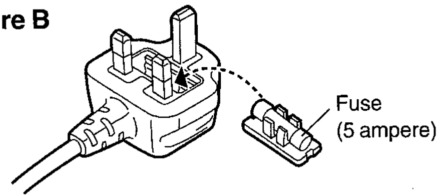


**Figure B**



# Safety precautions

## Placement

Set the system up on an even surface away from direct sunlight, high temperatures, high humidity, and excessive vibration. These conditions can damage the cabinet and other components, thereby shortening the unit's service life.
Place it at least 15 cm away from wall surfaces to avoid distortion and unwanted acoustical effects.
Do not place heavy items on the unit.

## Voltage

Do not use high voltage power sources. This can overload the unit and cause a fire.
Do not use a DC power source. Check the source carefully when setting the unit up on a ship or other place where DC is used.

## AC mains lead protection

Ensure the AC mains lead is connected correctly and not damaged. Poor connection and lead damage can cause fire or electric shock.
Do not pull, bend, or place heavy items on the lead.
Grasp the plug firmly when unplugging the lead. Pulling the AC mains lead can cause electric shock.
Do not handle the plug with wet hands. This can cause electric shock.

## Foreign matter

Do not let metal objects fall inside the unit. This can cause electric shock or malfunction.
Do not let liquids get into the unit. This can cause electric shock or malfunction. If this occurs, immediately disconnect the unit from the power supply and contact your dealer.
Do not spray insecticides onto or into the unit. They contain flammable gases which can ignite if sprayed into the unit.

## Service

Do not attempt to repair this unit by yourself. If sound is interrupted, indicators fail to light, smoke appears, or any other problem that is not covered in these instructions occurs, disconnect the AC mains lead and contact your dealer or an authorized service center. Electric shock or damage to the unit can occur if the unit is repaired, disassembled or reconstructed by unqualified persons.

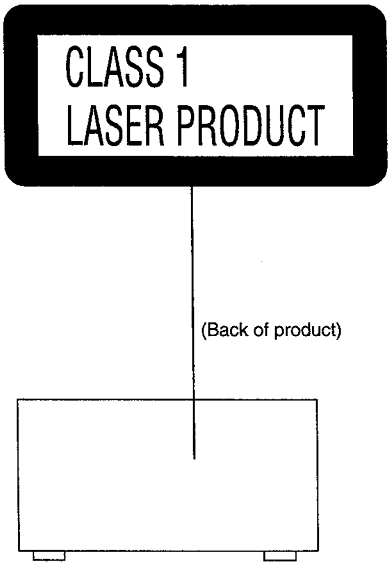
Extend operating life by disconnecting the unit from the power source if it is not to be used for a long time.

### CAUTION!

**THIS PRODUCT UTILIZES A LASER. USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.**
**DO NOT OPEN COVERS AND DO NOT REPAIR YOURSELF. REFER SERVICING TO QUALIFIED PERSONNEL.**

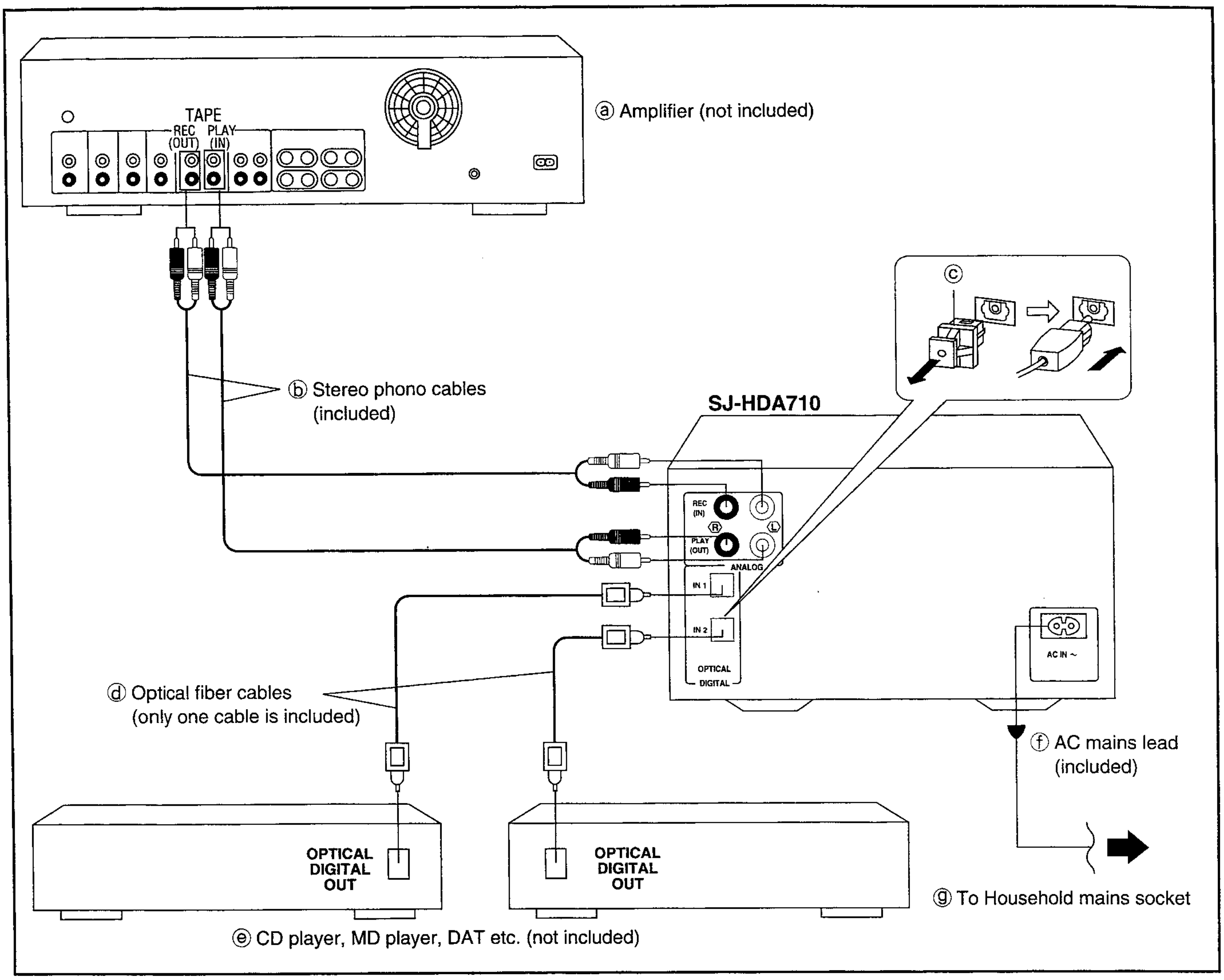
### CAUTION!

**DO NOT INSTALL OR PLACE THIS UNIT IN A BOOKCASE, BUILT IN CABINET OR IN ANOTHER CONFINED SPACE. ENSURE THE UNIT IS WELL VENTILATED. ENSURE THAT CURTAINS AND ANY OTHER MATERIALS DO NOT OBSTRUCT THE VENTILATION TO PREVENT RISK OF ELECTRIC SHOCK OR FIRE HAZARD DUE TO OVERHEATING.**



(Back of product)

| | | |
|---|---|---|
| DANGER | INVISIBLE LASER RADIATION WHEN OPEN. AVOID DIRECT EXPOSURE TO BEAM. | (Inside of product) |
| ADVARSEL | USYNLIG LASERSTRÅLING VED ÅBNING, NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION. UNDGÅ UDSÆTTELSE FOR STRÅLING. | (Indersiden at apparatet) |
| VARO! | AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA NÄKYMÄTÖNTÄ LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN. | (Tuotteen sisällä) |
| VARNING | OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRREN ÄR URKOPPLAD. BETRAKTA EJ STRÅLEN. | (Apparatens insida) |
| ADVARSEL | USYNLIG LASERSTRÅLING NÅR DEKSEL ÅPNES OG SIKKERHEDSLÅS BRYTES. UNNGÅ EKSPONERING FOR STRÅLEN. | (Produktets innside) |
| VORSICHT | UNSICHTBARE LASERSTRAHLUNG, WENN ABDECKUNG GEÖFFNET. NICHT DEM STRAHL AUSSETZEN. | (Im Inneren des Gerätes) |

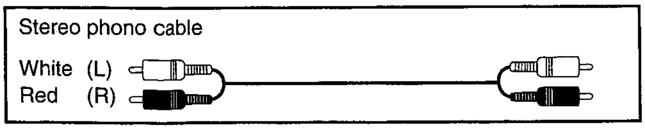

TAPE
REC (OUT)
PLAY (IN)
ⓐ Amplifier (not included)
ⓑ Stereo phono cables (included)
ⓒ
SJ-HDA710
REC (IN)
Ⓡ
Ⓛ
PLAY (OUT)
ANALOG
IN 1
IN 2
OPTICAL DIGITAL
AC IN ~
ⓓ Optical fiber cables (only one cable is included)
ⓕ AC mains lead (included)
OPTICAL DIGITAL OUT
OPTICAL DIGITAL OUT
ⓖ To Household mains socket
ⓔ CD player, MD player, DAT etc. (not included)

This example shows the unit connected to an amplifier through the ANALOG IN/OUT terminals, and to digital equipment (CD player, MD player, DAT, etc.) through the OPTICAL DIGITAL IN terminals. Before making connections, turn off all the components.

## ANALOG IN / OUT terminals

Connect the PLAY (OUT) terminals to PLAY (IN) terminals on an amplifier to play through speakers connected to the amplifier.
Connect the REC (IN) terminals to the REC (OUT) terminals on an amplifier to record sounds from other components connected to the amplifier.

Stereo phono cable


White (L)
Red (R)

## OPTICAL DIGITAL terminals

Remove the dust-protection caps (ⓒ) before connecting the optical fiber cables.
Connect IN 1 and IN 2 to OPTICAL OUT terminals on other components for digital recording to this unit.

**Note**

OPTICAL DIGITAL terminals not in use should be covered by a dust cap.

## FOR UNITED KINGDOM ONLY

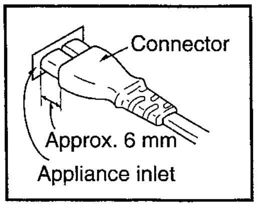
**BE SURE TO READ THE CAUTION FOR THE AC MAINS LEAD ON PAGE 3 BEFORE CONNECTION.**

## AC IN terminal

Connect to a household mains socket with the AC mains lead.

**Insertion of connector**

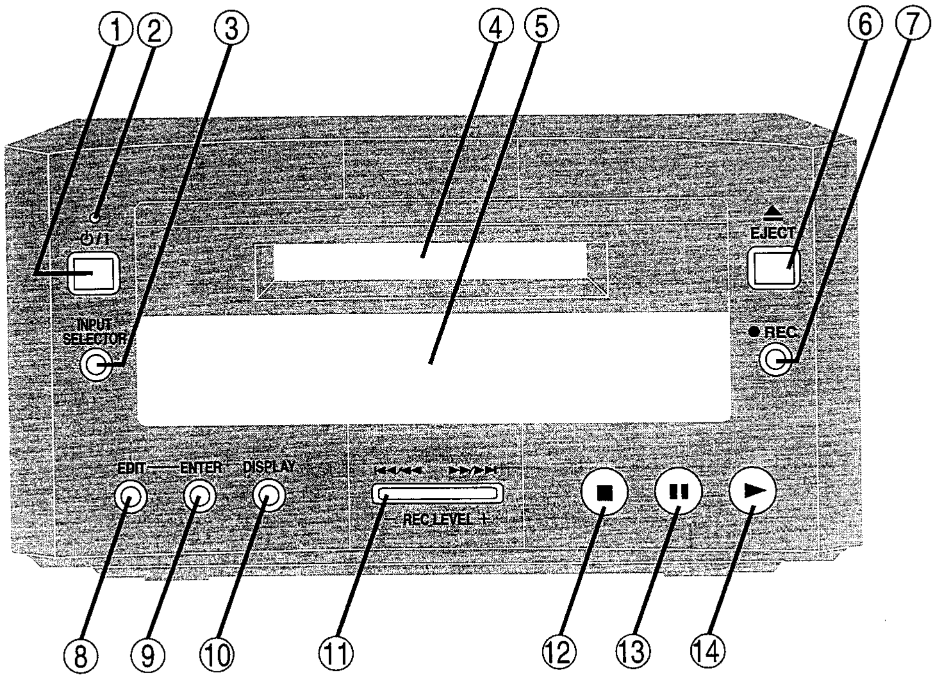
Even when the connector is perfectly inserted, depending on the type of inlet used, the front part of the connector may jut out as shown in the drawing. However there is no problem using the unit.


Connector
Approx. 6 mm
Appliance inlet

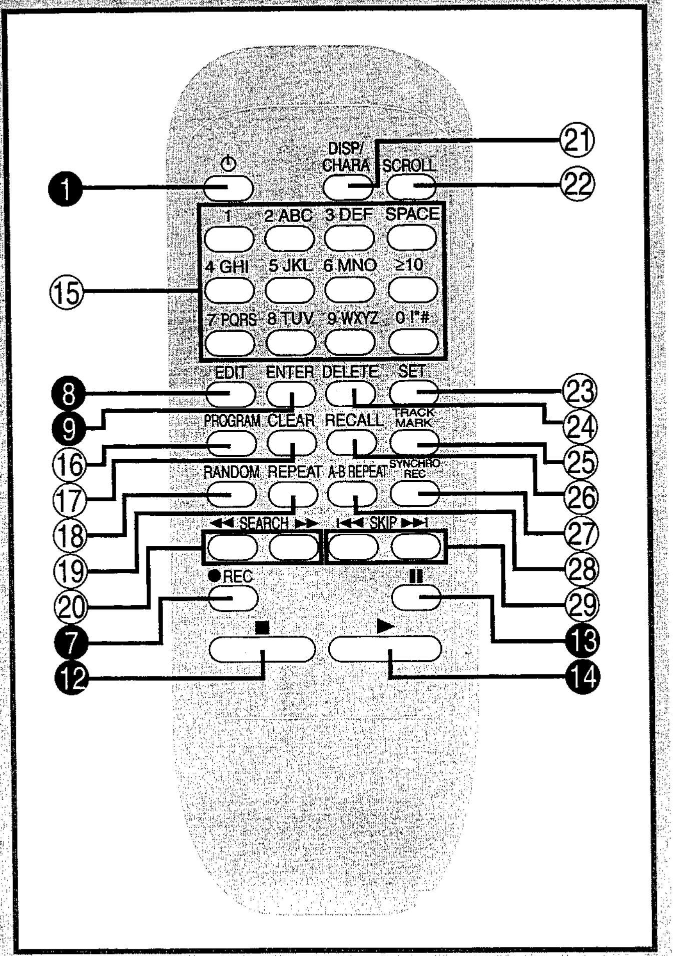
**Note**

This unit may interfere with radio reception so leave some distance between it and your tuner.

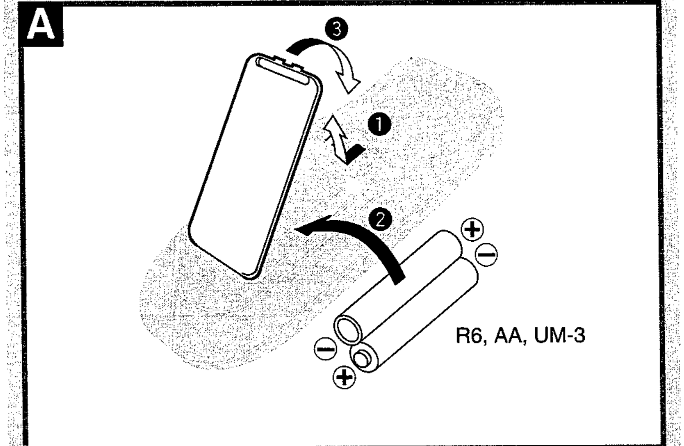
# Front panel controls



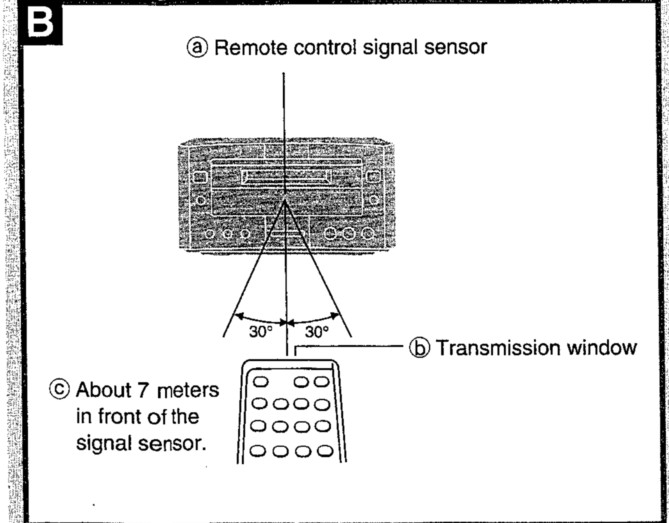
| No. | Name | Ref. page |
|---|---|---|
| ① | **Standby/on switch (⏻/I)**<br>Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still consuming a small amount of power. | 8 |
| ② | **Standby indicator**<br>When the unit is connected to the AC mains supply, this indicator lights up in standby mode and goes out when the unit is turned on. | |
| ③ | **Input selector (INPUT SELECTOR)** | 8 |
| ④ | **MD slot** | 8 |
| ⑤ | **Display** | |
| ⑥ | **Eject button (▲ EJECT)** | 8 |
| ⑦ | **Record button (● REC)** | 8 |
| ⑧ | **Editing mode button (EDIT)** | 19-21 |
| ⑨ | **Enter button used in editing (ENTER)** | 19-21 |
| ⑩ | **Display mode select button (DISPLAY)** | 15 |
| ⑪ | **Skip/Search button or Recording level control (⏮/◀◀, ▶▶/⏭, – REC LEVEL +)** | 9, 10 |
| ⑫ | **Stop button (■)** | 8, 10 |
| ⑬ | **Pause button (❚❚)** | 8, 10 |
| ⑭ | **Play/recording start button and indicator (▶)** | 8, 10 |


❶
⏻
DISP/ CHARA
SCROLL
㉑
㉒
1
2 ABC
3 DEF
SPACE
4 GHI
5 JKL
6 MNO
≥10
7 PQRS
8 TUV
9 WXYZ
0 !"#
⑮
EDIT
ENTER
DELETE
SET
PROGRAM
CLEAR
RECALL
TRACK MARK
RANDOM
REPEAT
A-B REPEAT
SYNCHRO REC
◀◀ SEARCH ▶▶
|◀◀ SKIP ▶▶|
●REC
❚❚
■
▶
❽
❾
⑯
⑰
⑱
⑲
⑳
❼
⓬
㉓
㉔
㉕
㉖
㉗
㉘
㉙
⓭
⓮

A


❸
❶
❷
R6, AA, UM-3

B


ⓐ Remote control signal sensor
30°
30°
ⓑ Transmission window
ⓒ About 7 meters in front of the signal sensor.

## The remote control

Buttons ❶, ❼ to ❾, and ⓬ to ⓮ function the same as the controls on the main unit.

| No. | Name | Ref. page |
|---|---|---|
| ⑮ | **Numeric/Character buttons** | **12, 16** |
| ⑯ | **Program button (PROGRAM)** | **13** |
| ⑰ | **Program clear button (CLEAR)** | **13** |
| ⑱ | **Random play button (RANDOM)** | **12** |
| ⑲ | **Repeat button (REPEAT)** | **14** |
| ⑳ | **Search buttons ( ◀◀ SEARCH ▶▶ )** | **10** |
| ㉑ | **Display/Text mode select button (DISP/CHARA)** | **16** |
| ㉒ | **Scroll button (SCROLL)** | **15** |
| ㉓ | **Track marking button (SET)** | **9** |
| ㉔ | **Delete button (DELETE)** | **17** |
| ㉕ | **Auto track-marking button (TRACK MARK)** | **9** |
| ㉖ | **Recall button (RECALL)** | **13** |
| ㉗ | **Synchro-record button (SYNCHRO REC)** | **11** |
| ㉘ | **A-B repeat button (A-B REPEAT)** | **14** |
| ㉙ | **Skip buttons ( \|◀◀ SKIP ▶▶\| )** | **10** |

## A Battery installation

### Use of batteries

- Align the poles (+ and –) properly when inserting the batteries. Press in and down towards the minus end.
- Do not mix old and new batteries, or batteries of different types.
- Do not recharge ordinary dry cell batteries.
- Do not heat or disassemble the batteries. Do not allow them to contact flame or water.
- Remove the batteries if the unit is not to be used for a long time.
- Do not keep together with metallic objects such as necklaces.
- Do not use batteries if the covering has been peeled off.
- Do not use rechargeable type batteries.

Mishandling of batteries can cause electrolyte leakage which can damage items the fluid contacts and may cause a fire.
If electrolyte leaks from the batteries, consult your dealer.
Wash thoroughly with water if electrolyte comes in contact with any part of your body.

## B Correct method of use

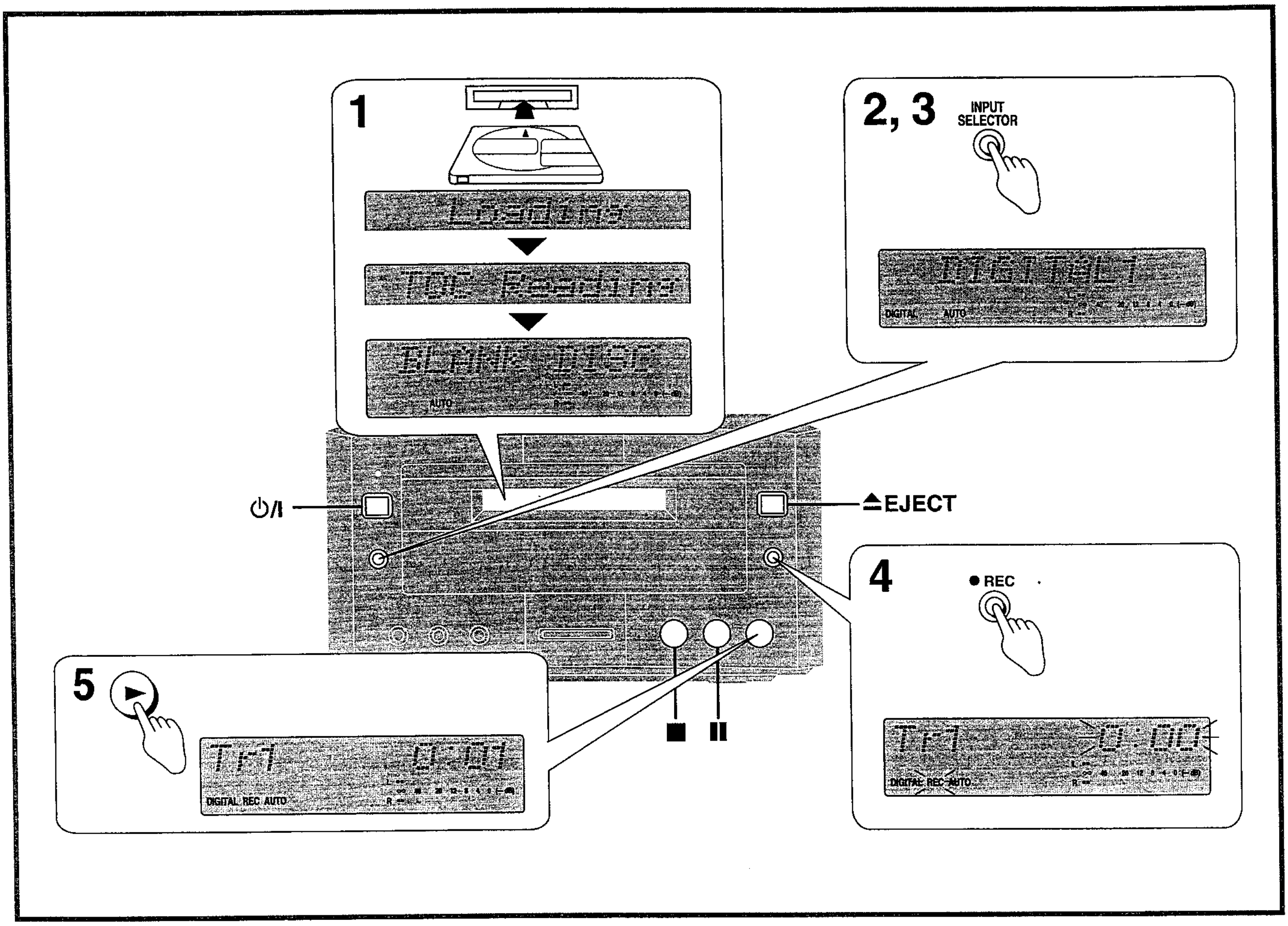
### Operation notes

- Do not place obstacles between the remote control signal sensor and remote control unit.
- Do not expose the remote control signal sensor to direct sunlight or to the bright light of a fluorescent light.
- Take care to keep the remote control signal sensor and end of the remote control unit free from dust.
- If this system is installed in a rack with glass doors, the glass doors' thickness or color might make it necessary to use the remote control a shorter distance from the system.

### To prevent damage

- Never place heavy items on top of the unit.
- Do not disassemble or reconstruct the unit.
- Do not spill water or other liquids into the unit.

# Basic recording


1
Loading
TOC Reading
BLANK DISC
AUTO
2, 3
INPUT SELECTOR
DIGITAL 1
DIGITAL
AUTO
⏻/I
≜EJECT
4
● REC
Tr1 0:00
DIGITAL REC AUTO
5
Tr1 0:01
DIGITAL REC AUTO
■
II

If you are using MDs for the first time, refer to the explanations on the back cover for clarification of the terms used.

**Before operation**
Turn on the unit you are recording from and prepare it for play.

### 1 Insert the MD for recording.

The unit comes on automatically, the message "TOC Reading" flashes on the display and then any information about the disc is shown.

### 2 Press [INPUT SELECTOR].

The current input mode is displayed.

**3 Within 3 seconds**

### Press [INPUT SELECTOR] to change the mode.

Each time you press the button:
DIGITAL 1 → DIGITAL 2 → ANALOG
↑________________________|

DIGITAL 1: When using OPTICAL DIGITAL IN 1
DIGITAL 2: When using OPTICAL DIGITAL IN 2
ANALOG: When using ANALOG REC (IN)
Change the track marking mode before proceeding to step 4 if applicable (➡ page 9).

### 4 Press [● REC].

The unit goes to recording standby.
If you selected ANALOG in step 3:
Adjust the recording level. (➡ page 9 for details.)

### 5 Press [▶] to start recording and start playing the sound source.

---

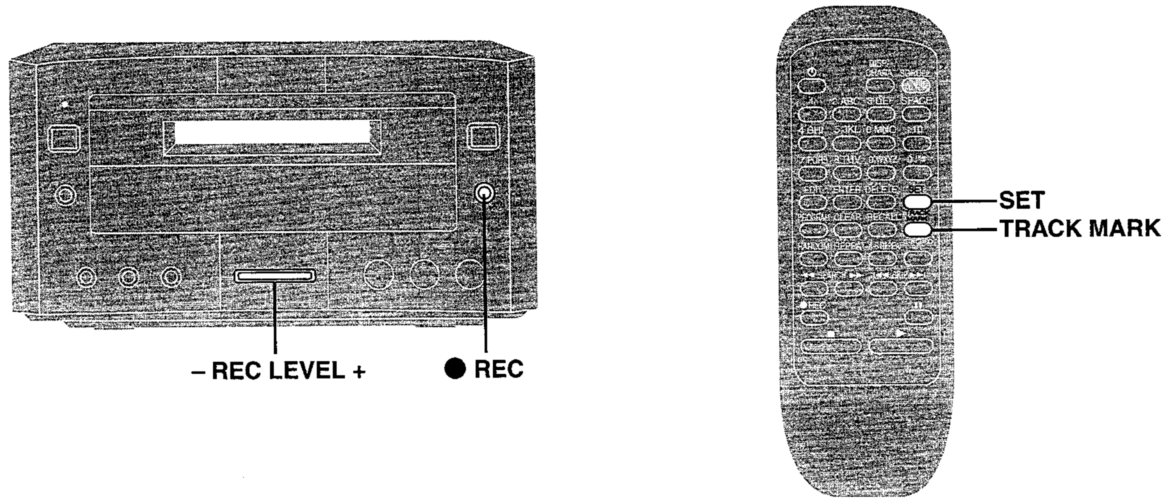
**To stop recording**
Press [■].
Recording has finished when the message "UTOC Writing" disappears from the display.

**To pause recording**
Press [II].
A track mark is added if the marking mode has been set to AUTO.
Press again to resume recording.

**To eject the MD**
Press [≜ EJECT].

**To turn the unit off**
Press [⏻/I].

**Reference**
The input source cannot be changed while recording.



### Digital recording (➡ step 3 on page 8)

Input through OPTICAL DIGITAL IN 1 or OPTICAL DIGITAL IN 2 will result in digital recording.
This unit has a sampling rate converter so you can record from satellite and cable tuners (32 kHz and 48 kHz).
The message "DIGITAL IN UNLOCK" is displayed if the source equipment is not connected correctly or it is not on.
The number of times you can record and re-record digital material is limited (➡ back cover).
Recording level adjustments are made automatically.

### How to adjust the recording level
(➡ step 4 on page 8)

**Necessary when recording is analog**

① Insert the MD and press [● REC].
② Play the source to be recorded.
③ Select the right level with [– REC LEVEL +].
Set so that the highest level on the source pushes the peak level meters just up to 0 dB. (A red indicator lights if the level is too high.)
–: The recording level decreases
+: The recording level increases
④ Stop the source.
Now begin recording (➡ step 5 on page 8).

---

Your attention is drawn to the fact that recording pre-recorded tapes or discs or other published or broadcast material may infringe copyright laws.

## To select the track marking mode
(Remote control only)

Before starting recording
Press [TRACK MARK].
Each time the button is pressed: AUTO ←→ MANUAL
AUTO: Track marks are automatically inserted.
MANUAL: If track marks are unnecessary or when you want to insert them manually (➡ below).
The mode is factory preset to AUTO.

### Auto marking

When set to AUTO, track marks are inserted as they are received from a digital source, or after three seconds of silence during analog recording.

**Note**

Track marks may not be inserted correctly while analog recording in the following cases:

- If the space between tracks is short;
- If there is noise between tracks;
- If there are parts of the track that play at an extremely low level;
- If recording is started partway through a track (the first silent section after recording begins is not registered).

Use the editing functions after recording is finished to correct the track marks.

### Manual marking

Add track marks where you want.
You can do this even if the track-marking mode is set to AUTO.

During recording

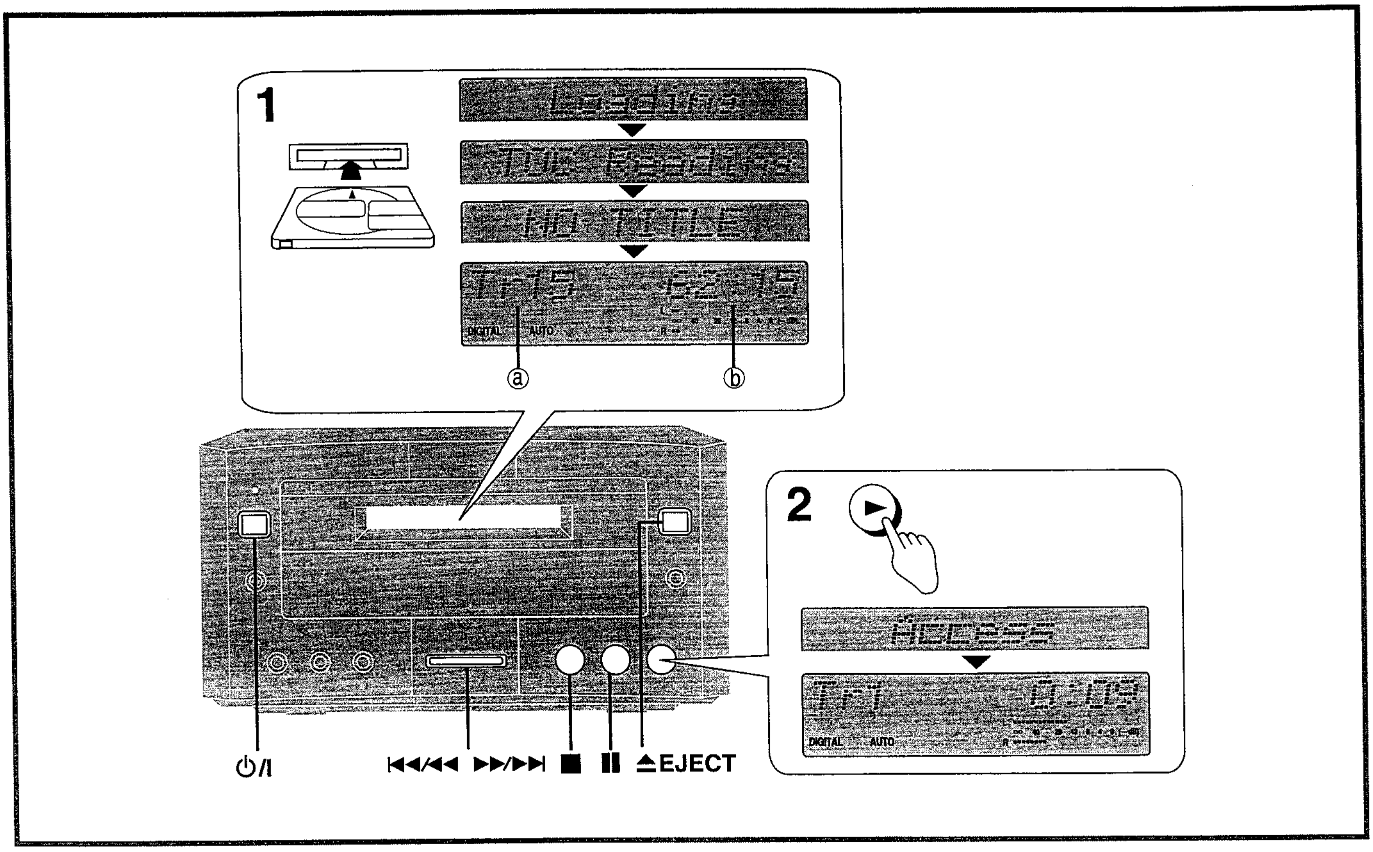
**Press [SET].**

A track mark is added each time the button is pressed and the number of tracks increases.

**Reference**

Track marks can be added until track 254 is reached.

# Basic play


1
Loading
TOC Reading
NO TITLE
Tr15 62:15
DIGITAL
AUTO
ⓐ
ⓑ
2
ACCESS
Tr1 0:09
DIGITAL
AUTO
⏻/I
|◀◀/◀◀ ▶▶/▶▶|
■
❚❚
▲EJECT

If you are using MDs for the first time, refer to the explanations on the back cover for clarification of the terms used.

## 1 Insert the MD.

The unit comes on automatically, the message "TOC Reading" flashes on the display and then any information about the disc is shown.

ⓐ Total number of tracks
ⓑ Total play time

## 2 Press [▶].

---

**To stop play**
Press [■].

**To pause play**
Press [❚❚].
Press again to resume play.

**To eject the MD**
Press [▲ EJECT].

**To turn the unit off**
Press [⏻/I].

**Reference**
The unit automatically plays stereo and monaural MDs.

### Skipping tracks

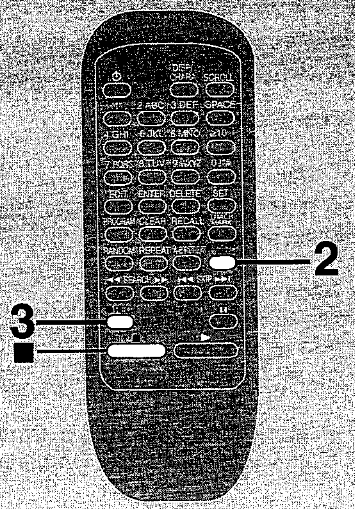
**Press the button once for each track to be skipped.**

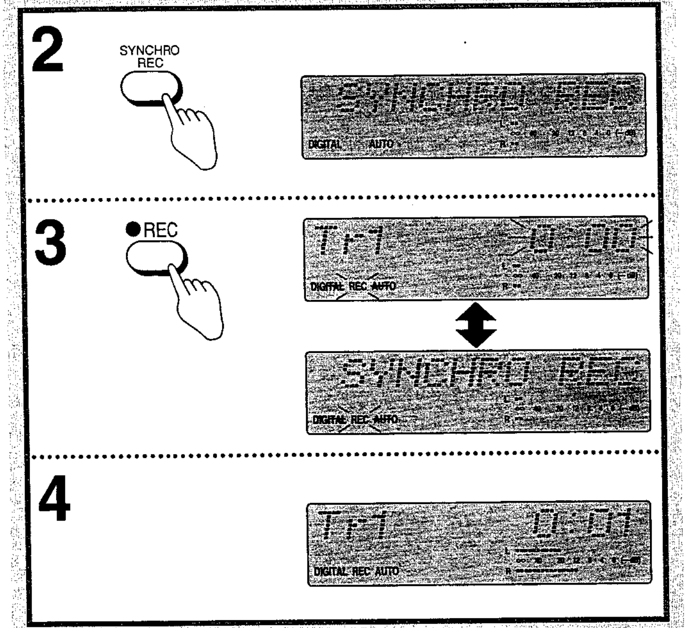
| | Backward | Forward |
|---|---|---|
| Main unit | \|◀◀ / ◀◀ | ▶▶ / ▶▶\| |
| Remote control | \|◀◀ | ▶▶\| |

### Fast forwarding and rewinding

**Keep the button pressed during play or pause mode.**

| | Backward | Forward |
|---|---|---|
| Main unit | \|◀◀ / ◀◀ | ▶▶ / ▶▶\| |
| Remote control | ◀◀ | ▶▶ |





## Synchronized recording
(Remote control only)

Recording starts as soon as sound input is detected.

### 1 Insert an MD and select the source (➡ steps 1 to 3 on page 8).

If you have selected analog input, press [● REC], adjust the recording level and press [■].

### 2 Press [SYNCHRO REC].

"SYNCHRO REC" appears on the display.

### 3 Press [● REC].

The unit goes to recording standby.

### 4 Start playing the source.

Recording starts as soon as sound is detected.

---

**To stop recording**

Press [■].

Recording has finished when the message "UTOC Writing" disappears from the display.

**To pause recording**

Pause or stop the sound source and this unit pauses after 4 seconds of silence. Recording resumes when the source is started again. [❚❚] on this unit does not work while this function is on.

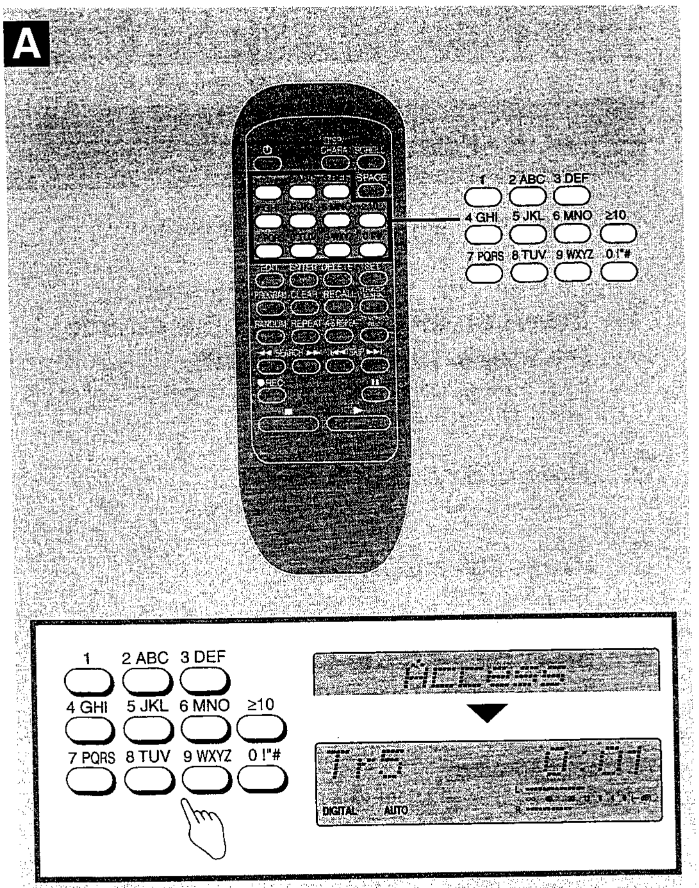
This unit is paused when play ends.
Press [■] to cancel the function.

**Note**

Recording quality can be affected if a track begins with extremely low volume or if there are almost silent parts during the track.
Do not use this function if the source you are recording contains such tracks. (Track marks can be added with the divide function after recording. ➡ page 18.)

# Other play modes

A


1
2 ABC
3 DEF
4 GHI
5 JKL
6 MNO
≥10
7 PQRS
8 TUV
9 WXYZ
0 !"#
ACCESS
Tr5 0:01
DIGITAL
AUTO

## A Direct play (Remote control only)

Enter a number to play a track.

While stopped or during play

**Press the numeric/character buttons.**

Play starts from the selected track.

**To select a track numbered 1 to 9**

Press the corresponding numeric/character button.

**To select a two digit number (10 to 99)**

First press [≥10] then the corresponding numeric/character buttons.

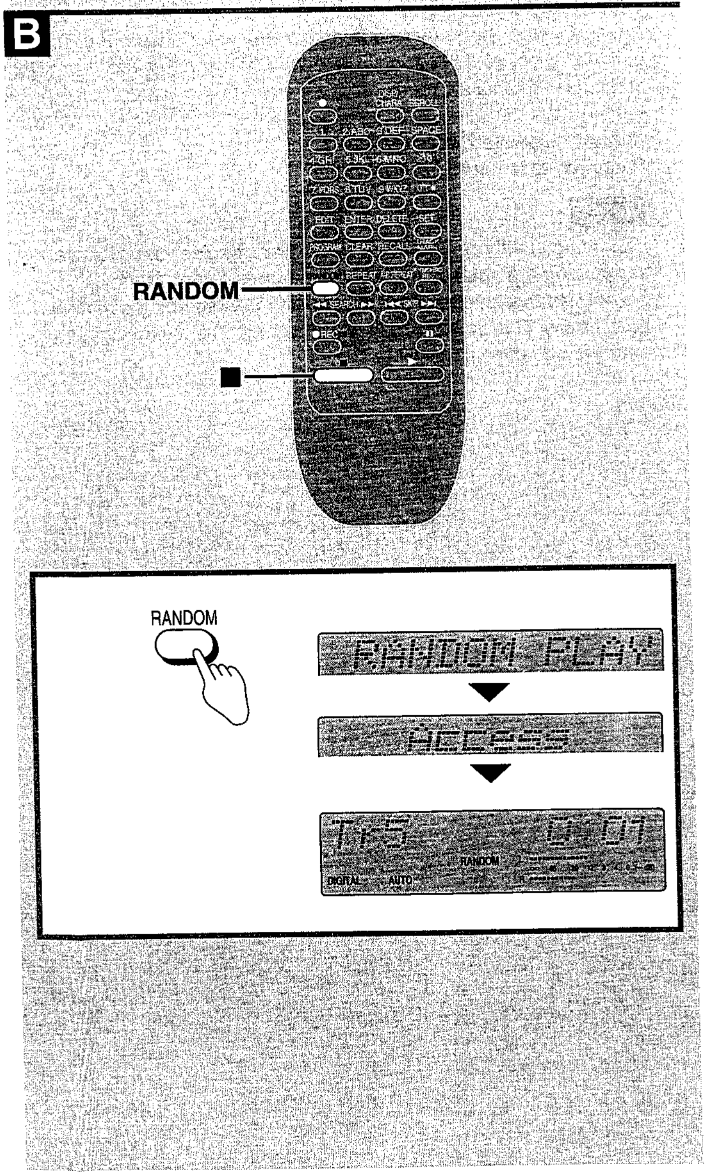
e.g. Track 10: [≥10] → [1] → [0]

**To select a three digit number (100 to 254)**

First press [≥10] twice then the corresponding numeric/character buttons.

e.g. Track 235: [≥10] → [≥10] → [2] → [3] → [5]

B


RANDOM
■
RANDOM
RANDOM PLAY
ACCESS
Tr5 0:01
RANDOM
DIGITAL
AUTO

## B Random play (Remote control only)

All tracks play once each in random order.

While stopped

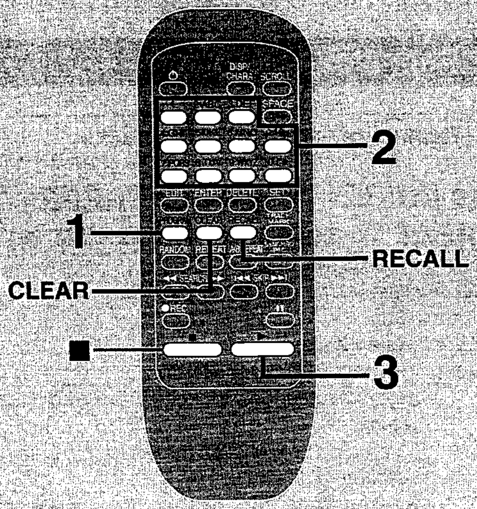
**Press [RANDOM].**

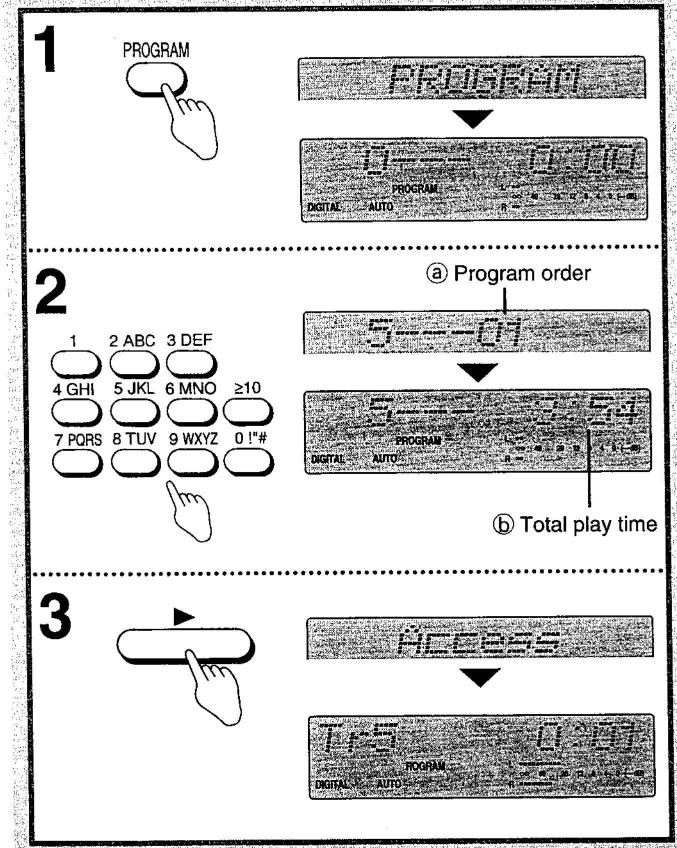
**To cancel random play**

Press [■]. (Press twice if the unit is playing.)

**Note**

During random play, you cannot skip back to tracks that have been played, or search backward or forward between tracks.


2
1
RECALL
CLEAR
■
3


1
PROGRAM
PROGRAM
DIGITAL
AUTO
2
ⓐ Program order
1
2 ABC
3 DEF
4 GHI
5 JKL
6 MNO
≥10
7 PQRS
8 TUV
9 WXYZ
0 !"#
ⓑ Total play time
3
►
ACCESS

## Program play (Remote control only)

Select up to 24 tracks to play in the order you choose.

While stopped

### 1 Press [PROGRAM].

### 2 Press the numeric/character buttons to select the track number.

Repeat to program the required tracks in order.

"FULL" appears on the display when there is no space left in the program.

### 3 Press [►].

The selected program begins.

The program remains intact even if the unit is turned off and on again.

---

**To cancel program play**

Press [■]. (Press twice if the unit is playing.)
"CLEAR" appears on the display for a second and PROGRAM is cleared.
The programmed contents are also cleared.

**To check the contents of the program**

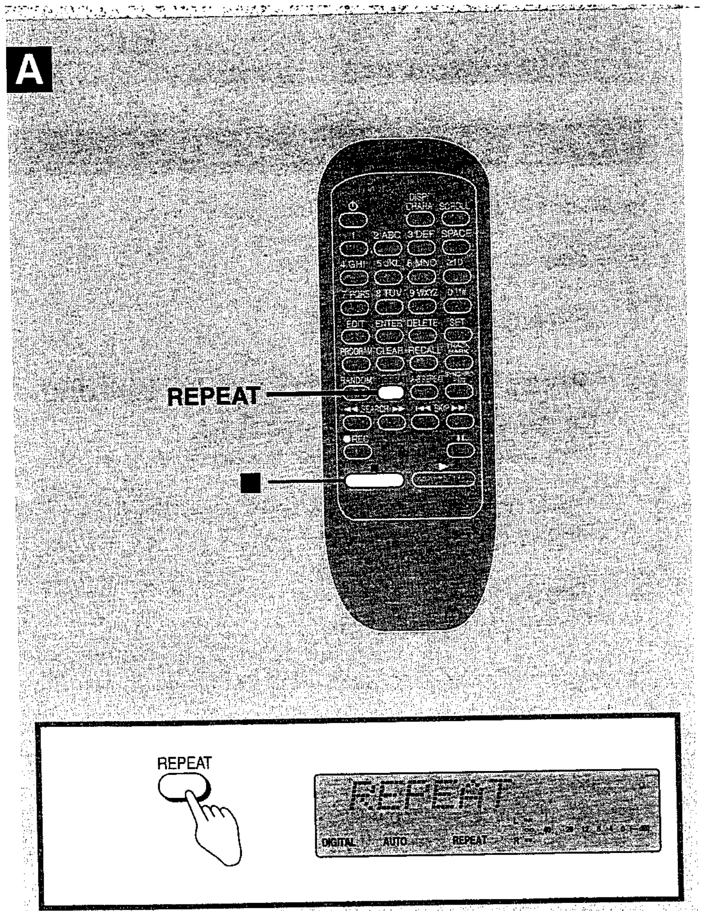
Press [RECALL].
A track number and its order in the program are displayed each time you press the button.

**To clear tracks from the program**

- **The last track**
  While stopped
  Press [CLEAR].
- **A particular track**
  While stopped
  1. Press [RECALL] to select the track.
  2. Press [CLEAR] while the track is displayed.

## Repeat play (Remote control only)

A



### A Repeating one or all of the tracks

**Press [REPEAT] so either "REPEAT" or "REPEAT 1" appears on the display.**

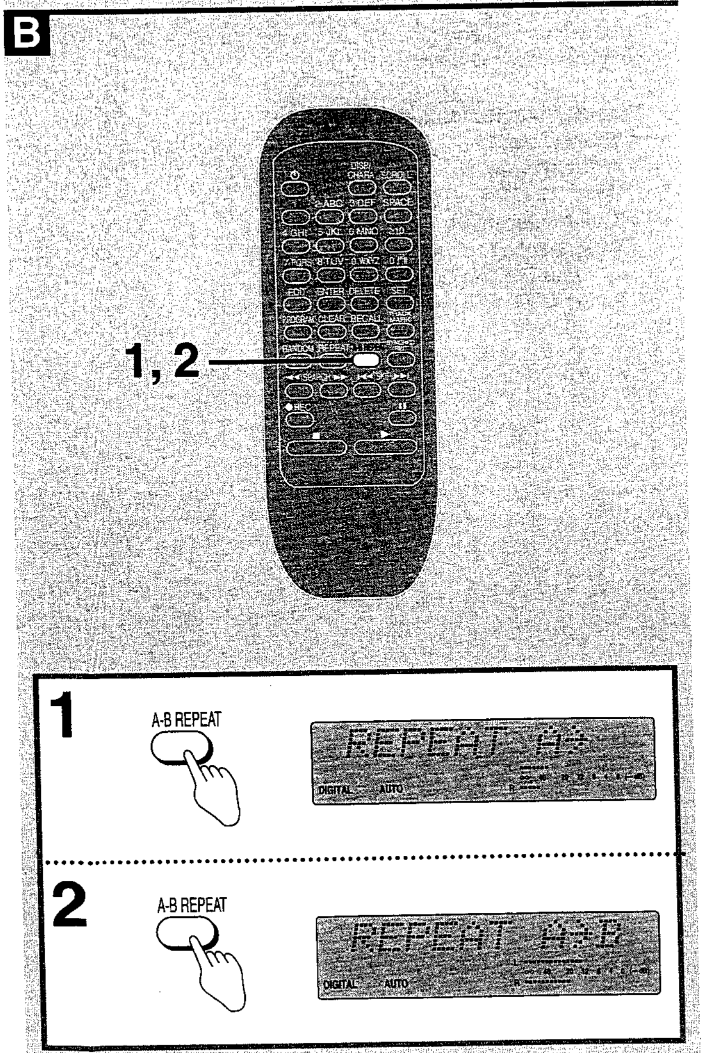
Each time the button is pressed:
REPEAT → REPEAT 1 → REPEAT OFF (off)

| | |
|---|---|
| **REPEAT:** | all tracks played repeatedly |
| **REPEAT 1:** | one track played repeatedly<br>If activated during play, the current track is played repeatedly.<br>If activated before play, the first track is played repeatedly after play starts.<br>Select another track by skipping or selecting it directly with the numeric/character buttons. |

**Reference**
These modes also function during random and program play.

**To cancel repeat play**
Press [■]. (Press twice if the unit is playing.)
The mode is also cleared if [REPEAT] is pressed so "REPEAT OFF" appears on the display.

B



### B Repeating a particular section – A-B repeat

During play

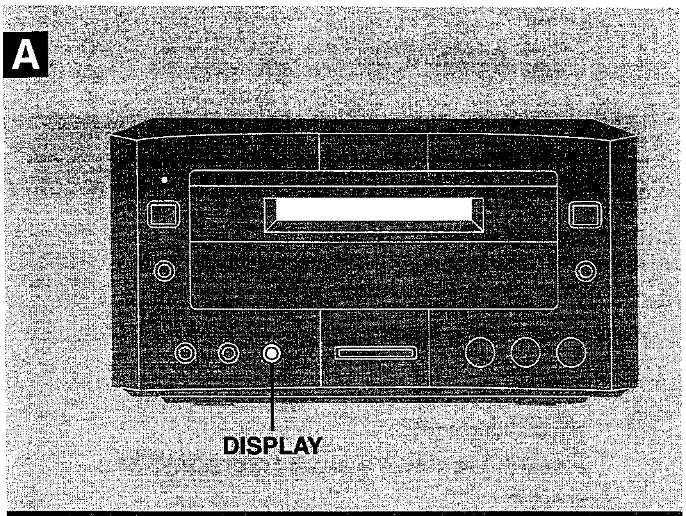
1. **Press [A-B REPEAT] at the point repeating is to start.**
2. **Press [A-B REPEAT] again at the point repeating is to finish.**
   The chosen section plays repeatedly.

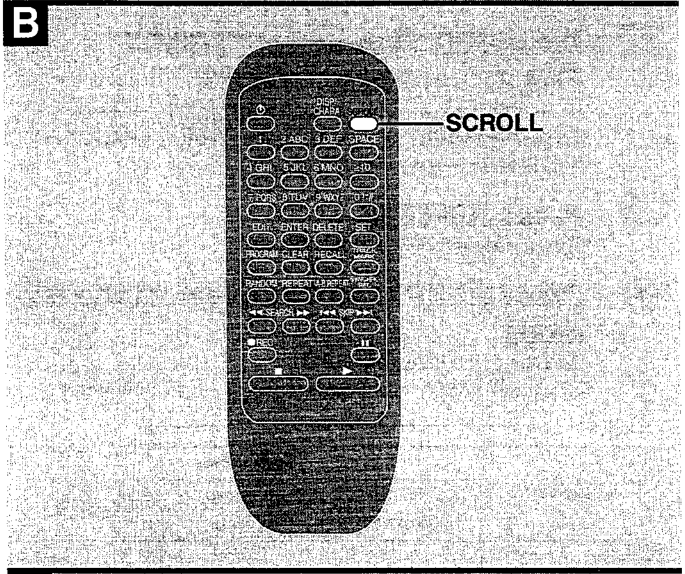
**To cancel A-B repeat**
Press [A-B REPEAT].

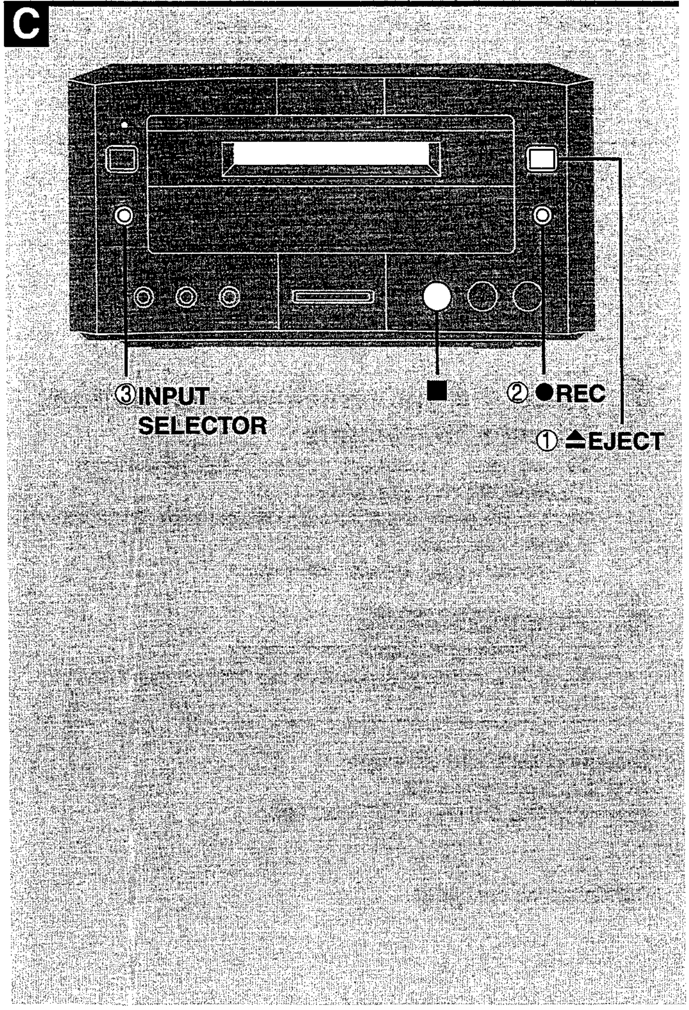
It is also cleared if play is stopped.

**Note**

A-B repeat does not work with random, program or repeat play.







# Convenient functions

## A Changing the display

### Press [DISPLAY].

Different information appears on the display each time the button is pressed. The information shown depends on the condition of the unit.

Example

**During play**

① Track number and elapsed time for that track
② Track number and remaining time
③ Name of track

**While recording**

① Track number and elapsed time for that track
② Remaining time on MD
③ Name of track

**While stopped**

① Total number of tracks and total play time of the disc
② Remaining available time on MD
③ Title of MD

**Reference**

Text over 12 letters long scrolls whenever that display is selected.

## B Scrolling the display
(Remote control only)

When the title of a disc or the names of tracks are too long to fit on the display at one time, the unit automatically scrolls that information across the screen once when the information is accessed.
This operation allows you to see the information in full again.

### Press [SCROLL].

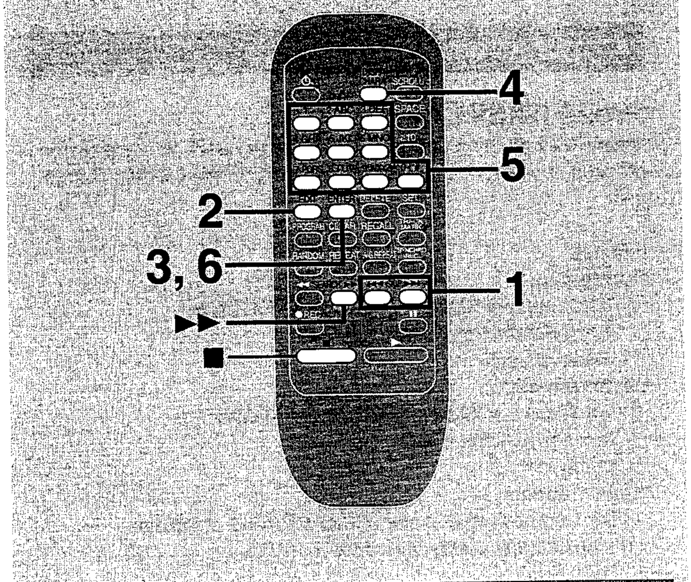
The information scrolls from right to left across the display.

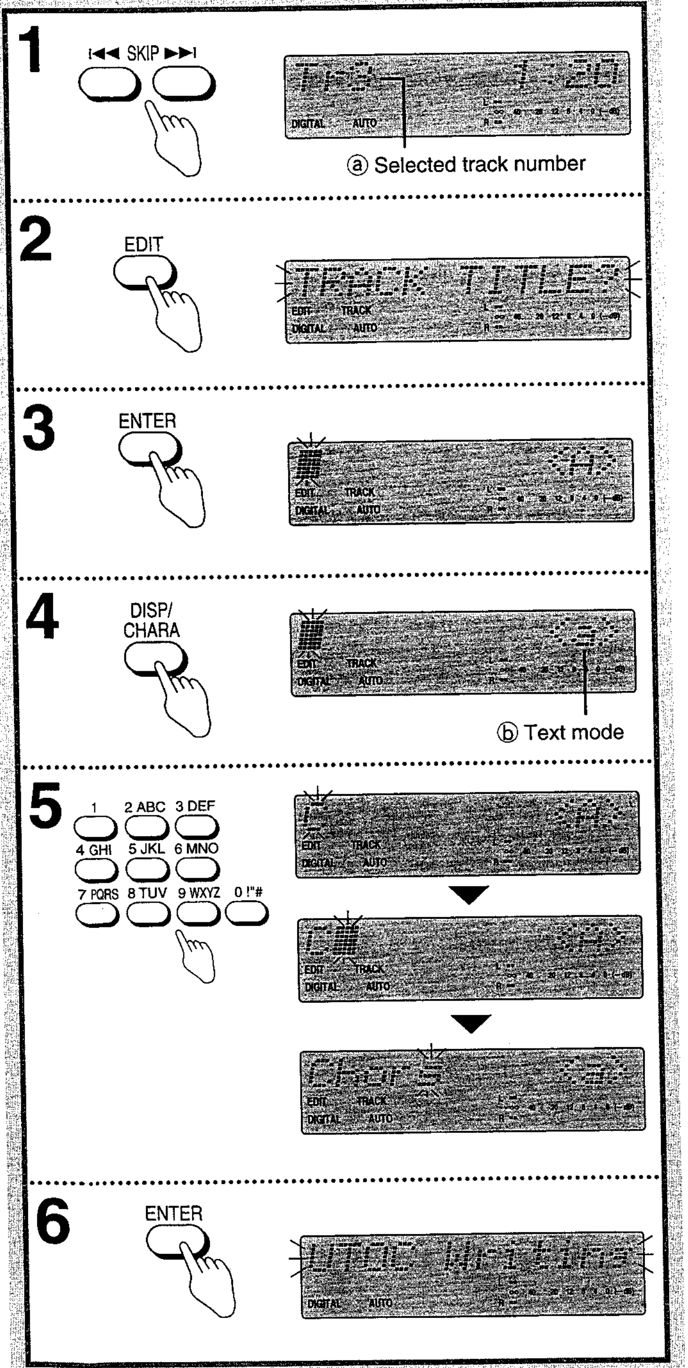
## C Monitor function

Input from units connected to this unit's input terminals can be sent to units connected to this unit's output terminals.
The signal is output through the ANALOG PLAY (OUT) terminals. This unit converts digital and analog signals automatically so you can, for example, send digital input directly to an analog amplifier.

① Press [▲ EJECT] if an MD is in the unit. (This function will not work if an MD is in the unit.)
② Press [● REC]. ("Monitor" appears on the display.)
③ Select the source with [INPUT SELECTOR].
④ Begin play on the selected source and the sound is output automatically.

Press [■] to cancel.




1
|◀◀ SKIP ▶▶|
ⓐ Selected track number
2
EDIT
TRACK TITLE?
3
ENTER
4
DISP/
CHARA
ⓑ Text mode
5
1
2 ABC
3 DEF
4 GHI
5 JKL
6 MNO
7 PQRS
8 TUV
9 WXYZ
0 !"#
6
ENTER
UTOC Writing

## Titling tracks and discs
### (Remote control only)

Each title can have up to 100 letters.
A single MD can hold about 1700 letters of text.
You cannot add titles to prerecorded MDs.

Make sure the disc is record enabled.

While stopped

**1** **When titling a track**
**Press [|◀◀] or [▶▶|] to select the track.**

**2** **Press [EDIT] to select "TRACK TITLE?" or "DISC TITLE?".**
Each time the button is pressed: TRACK TITLE? → DISC TITLE? → MOVE? → COMBINE? → TRACK ERASE? → ALL ERASE? → current display

**3** **Press [ENTER].**
The text input mode is activated.

**4** **Press [DISP/CHARA] to select the text mode.**
Each time you press the button:
<A> (CAPITALS) → <a> (lower case) → <1> (numbers)

| Button | Text mode | | |
|---|---|---|---|
| | CAPITALS/ symbol | lower case / symbol | Numbers |
| 1 | | | 1 |
| 2 A B C | A B C | a b c | 2 |
| 3 D E F | D E F | d e f | 3 |
| 4 G H I | G H I | g h i | 4 |
| 5 J K L | J K L | j k l | 5 |
| 6 M N O | M N O | m n o | 6 |
| 7 P Q R S | P Q R S | p q r s | 7 |
| 8 T U V | T U V | t u v | 8 |
| 9 W X Y Z | W X Y Z | w x y z | 9 |
| 0 ! " # | ! " # $ % & ´ ( ) * + , –. /<br>: ; < = > ? @ _ ` | | 0 |

**5** **Press the numeric/character buttons to enter characters.**
For example: To enter a "C", press [2 ABC] three times.
**To enter the next character**

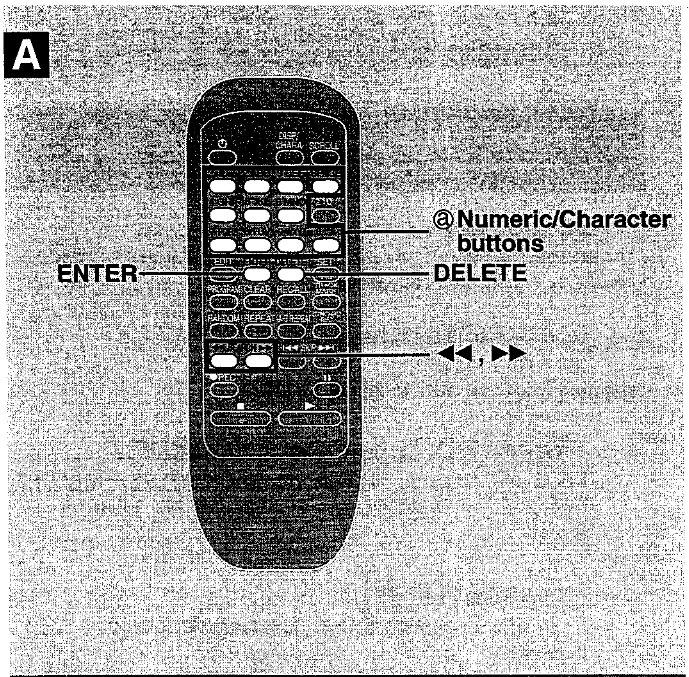
- If the character uses the same button, press [▶▶] to move to the next space.
- To enter a space, press [▶▶] twice.

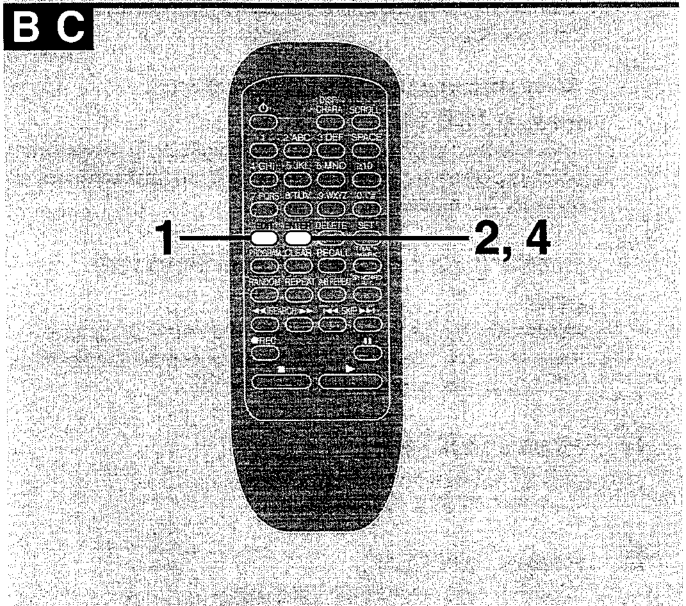
**6** **Press [ENTER].**
"UTOC Writing" appears on the display.
When this message disappears the title has been entered.

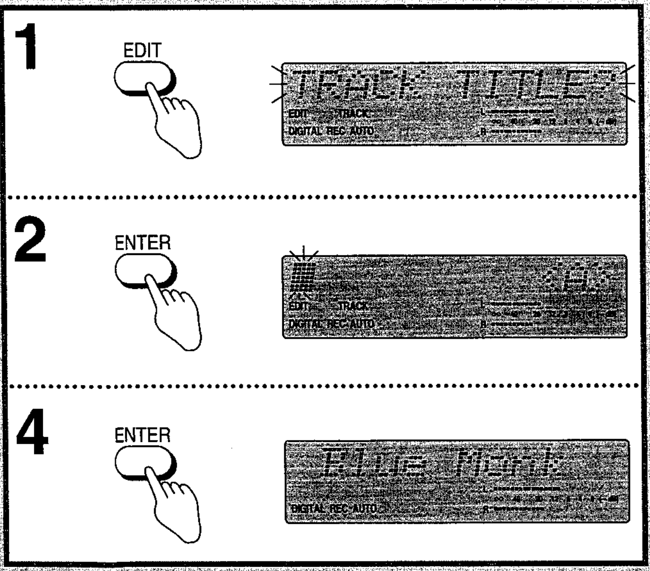
---

**Stopping part way through**
After step 1 or 2: Press [■].
After steps 3 to 5: Press [EDIT] then [■].

**Continued on next page**







## Editing MDs

### A Editing text

Press [◀◀] or [▶▶] to move the cursor.

**Erasing letters**
Move the cursor so it covers the letter to be erased and press [DELETE].
The letter is erased and the other letters move to fill the space.

**Inserting a letter or space**
Move the cursor to the letter to the right of the place where the letter or space is to go.
Now select and enter the letter with numeric/character buttons (➡ steps 4 to 5 on page 16) or press [SPACE] to enter a space.

**Changing letters**
① Erase the old letter.
② Insert the new letter (➡ steps 4 to 5 on page 16).

**Making corrections to a title**
① Select the title to be corrected (➡ steps 1 to 3 on page 16).
② Use the above editing techniques to correct the title.
③ Press [ENTER].

### B Titling a track being recorded

While recording is in process

**1 Press [EDIT].**
"TRACK TITLE?" appears on the screen.

**2 Press [ENTER].**

**3 Enter the title (➡ steps 4 to 5 on page 16).**
This can be continued even if the track changes during recording.

**4 Press [ENTER].**
The previous display is restored.

The title is entered after recording finishes and "UTOC Writing" disappears from the display.

---

**To cancel part way through**
Press [EDIT].

### C Titling a track being played

While track is playing

**1 Press [EDIT] to select "TRACK TITLE?".**
Each time the button is pressed: TRACK TITLE? → DIVIDE? → MOVE? → COMBINE? → TRACK ERASE? → current display

**2 Press [ENTER].**

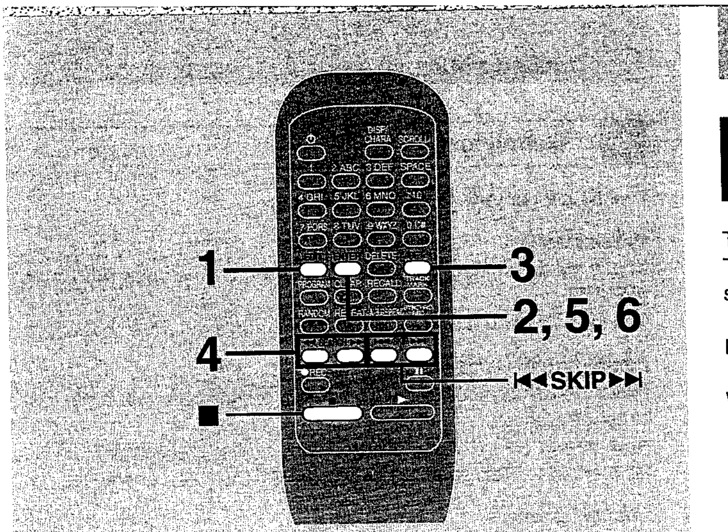
**3 Enter the title (➡ steps 4 to 5 on page 16).**
The track is played repeatedly.

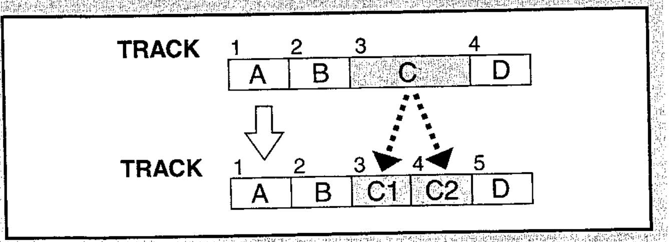
**4 Press [ENTER].**
The previous display is restored.

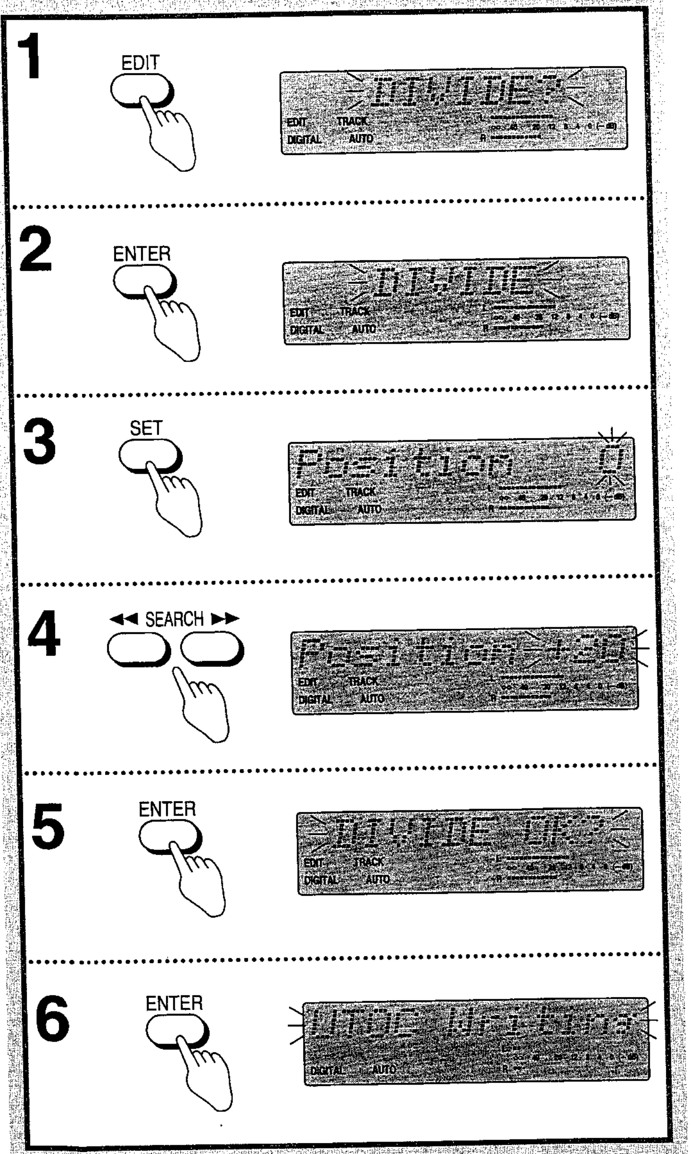
The title is entered after play stops and "UTOC Writing" disappears from the display.

---

**To cancel part way through**
Press [EDIT] until the normal display is restored.


1
3
2, 5, 6
4
■
|◀◀SKIP▶▶|


TRACK
1 2 3 4
A B C D
TRACK
1 2 3 4 5
A B C1 C2 D


1
EDIT
DIVIDE?
2
ENTER
DIVIDE
3
SET
Position 0
4
◀◀ SEARCH ▶▶
Position +30
5
ENTER
DIVIDE OK?
6
ENTER
UTOC Writing

## Dividing tracks - DIVIDE
(Remote control only)

This function allows you to manually add track marks.
This means you can edit a radio program you recorded, or divide a symphony into its separate movements.

Make sure the disc is record enabled.

While the track you want to divide is playing

**1 Press [EDIT] to select "DIVIDE?".**
Each time the button is pressed: TRACK TITLE? → DIVIDE? → MOVE? → COMBINE? → TRACK ERASE? → current display

**2 Press [ENTER].**
Press and hold [◀◀] or [▶▶] to adjust the point to put the track mark.
You can also select a different track at this point by pressing [|◀◀] or [▶▶|].

**3 At the point you want to add the track mark:**
**Press [SET].**
A four second segment of the track, beginning at the selected point, is played repeatedly (8 seconds if the track was recorded in MONO mode).

**4 Press [◀◀] or [▶▶] to adjust the point.**
Adjustment can be made between –128 and +127, approximately 8 seconds either side of the original point (16 seconds if the track was recorded in MONO mode).

**5 Press [ENTER].**
"DIVIDE OK?" appears on the display.
If you wish to cancel press [■] now.

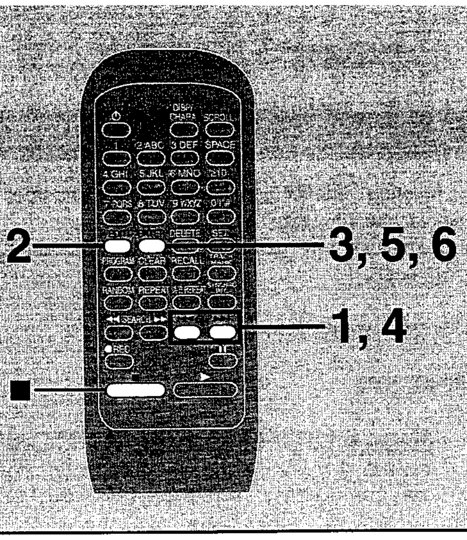
**6 Press [ENTER].**
"UTOC Writing" appears on the display.
When this message disappears the track mark has been entered.
Play stops.

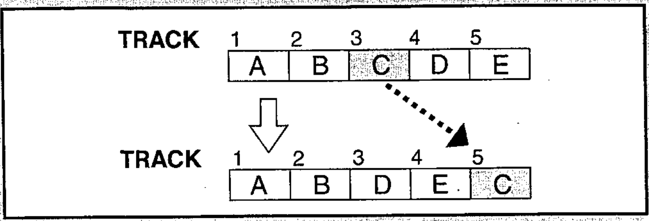
---

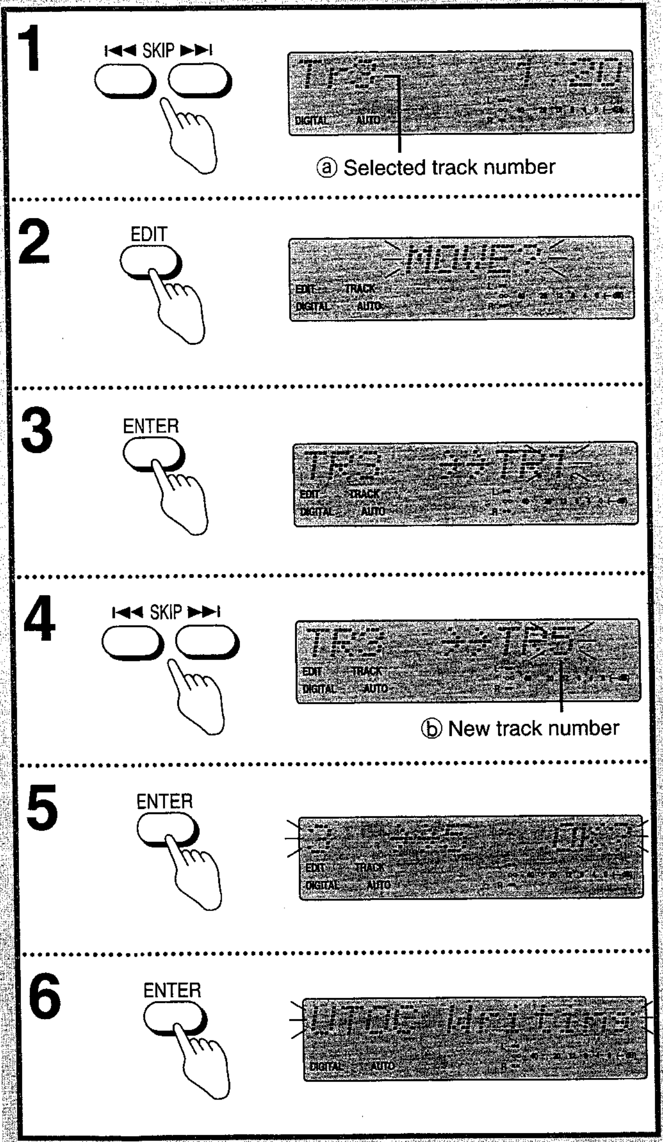
**To stop part way through**
Press [■].

**To remove the dividing track mark**
Use COMBINE (➡ page 20).

**Note**
- If a titled track is divided, the latter half becomes untitled.
- There is no interruption to sound even if a track mark is added.







MOVE, COMBINE, and ERASE can also be done on the main unit with the same buttons. ([|◀◀] and [▶▶|] are labeled [|◀◀ / ◀◀] and [▶▶ / ▶▶|] on the main unit.)

## Moving tracks - MOVE

This function allows you to permanently change the order tracks are played in.

Make sure the disc is record enabled.

While stopped

### 1 Press [|◀◀] or [▶▶|] to select the track to be moved.

### 2 Press [EDIT] to select "MOVE?".

Each time the button is pressed: TRACK TITLE? → DISC TITLE? → MOVE? → COMBINE? → TRACK ERASE? → ALL ERASE? → current display

### 3 Press [ENTER].

### 4 Press [|◀◀] or [▶▶|] to select the position (track number) the track is to be moved to.

To move the track to position 5, track number "5" should be on the display.

### 5 Press [ENTER].

A message confirming your selection appears on the display. If you wish to cancel press [■] now.

### 6 Press [ENTER].

The move is confirmed after "UTOC Writing" disappears from the display.

### To move a track while it is being played

This is useful when you want to make sure of the track you are moving.

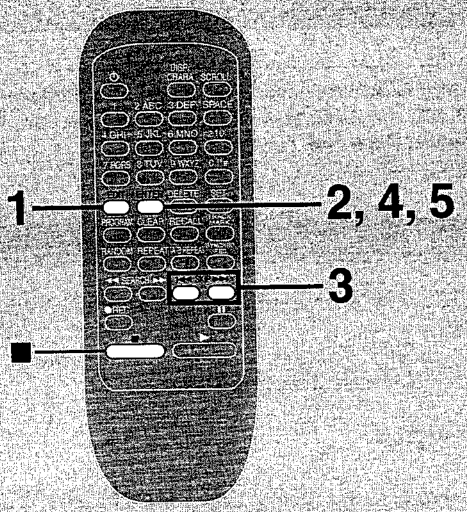
While playing the track to be moved

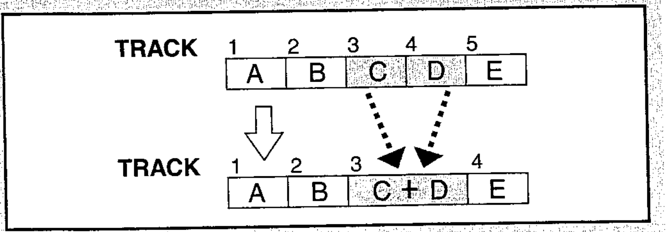
① Press [EDIT] to select "MOVE?"
Each time the button is pressed: TRACK TITLE? → DIVIDE? → MOVE? → COMBINE? → TRACK ERASE? → current display
② Press [ENTER].
③ Press [|◀◀] or [▶▶|] select the position (track number) the track is to be moved to.
④ Press [ENTER] twice.
The move is confirmed after "UTOC Writing" disappears from the display and play stops.

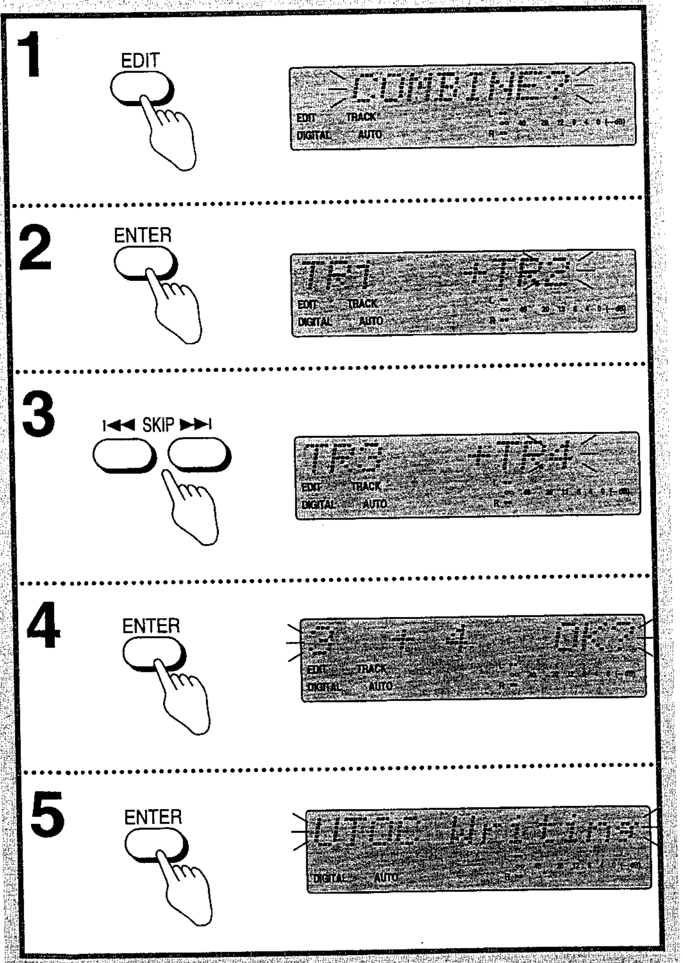
---

**To cancel part way through**
Press [■].

**To return the track to its original position**
Repeat the above steps, selecting the track's original position in step 4.







## Combining tracks - COMBINE

This function removes a track mark so the two tracks either side of it effectively become one track.
This is useful to remove track marks that were unnecessarily added during recording.

Make sure the disc is record enabled.

While stopped

1. **Press [EDIT] to select "COMBINE?".**
   Each time the button is pressed: TRACK TITLE? → DISC TITLE? → MOVE? → COMBINE? → TRACK ERASE? → ALL ERASE? → current display
2. **Press [ENTER].**
3. **Press [⏮] or [⏭] select the two tracks to be combined.**
4. **Press [ENTER].**
   A message confirming your selection appears on the display.
   If you wish to cancel press [■] now.
5. **Press [ENTER].**
   "UTOC Writing" appears on the display.
   When this message disappears the track mark has been erased.

### Combining tracks during play

This is useful to confirm the tracks you want to combine.

While playing the latter track

① Press [EDIT] to select "COMBINE?".
Each time the button is pressed: TRACK TITLE? → DIVIDE? → MOVE? → COMBINE? → TRACK ERASE? → current display

② Press [ENTER] three times.
"UTOC Writing" appears on the display.
When this message disappears the track mark has been erased.
Play stops.

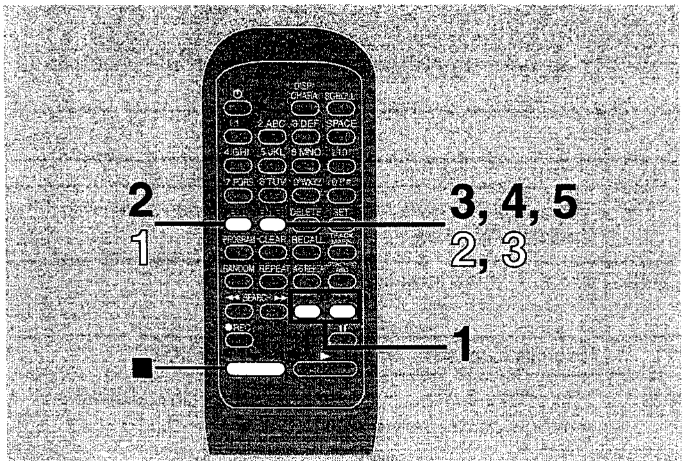
---

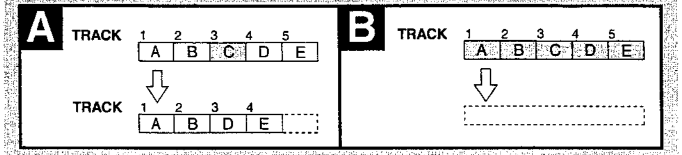
**To cancel part way through**
Press [■].

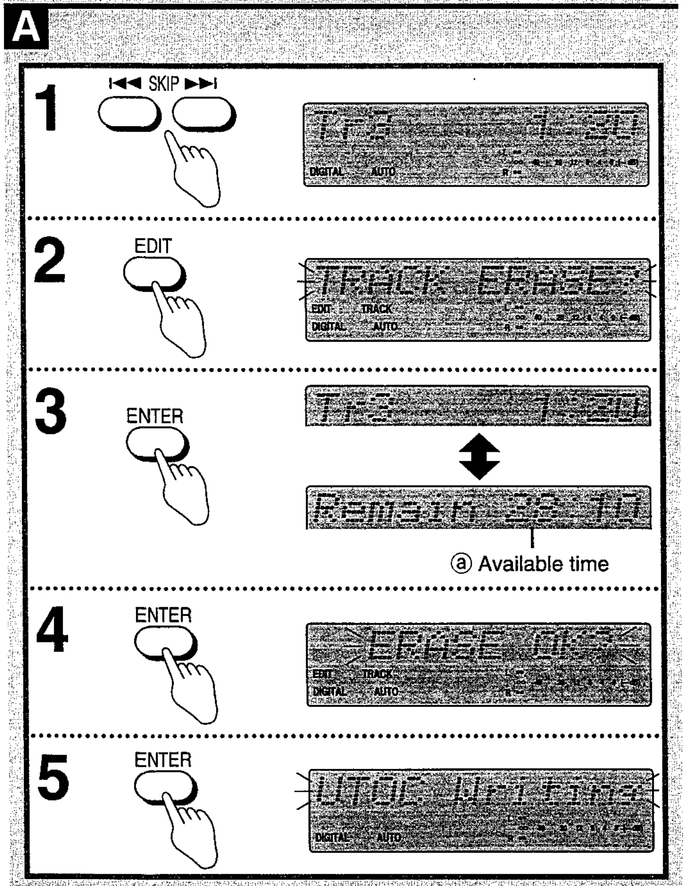
**To divide the tracks again**
Use DIVIDE (➡ page 18).

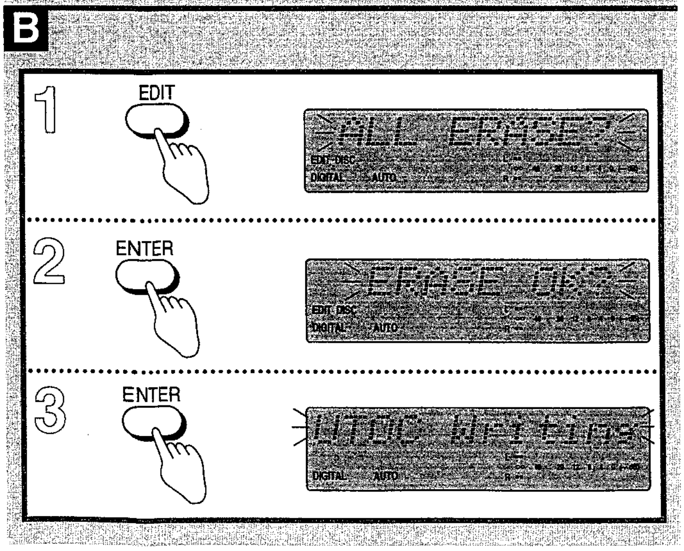
**Note**

- A track recorded in stereo mode and a track recorded in mono mode cannot be combined.
- If the two tracks both had titles, only the title of the first track remains after they are combined.




A
TRACK 1 2 3 4 5
A B C D E
TRACK 1 2 3 4
A B D E
B
TRACK 1 2 3 4 5
A B C D E


A
1
SKIP
2
EDIT
TRACK ERASE?
3
ENTER
Remain
ⓐ Available time
4
ENTER
ERASE OK?
5
ENTER
UTOC Writing


B
1
EDIT
ALL ERASE?
2
ENTER
ERASE OK?
3
ENTER
UTOC Writing

## A Erasing tracks

Unneeded tracks can be erased and the available recording time can be increased.

Make sure the disc is record enabled.

While stopped

**1 Press [|◀◀] or [▶▶|] select the track to be erased.**

**2 Press [EDIT] to select "TRACK ERASE?".**

Each time the button is pressed: TRACK TITLE? → DISC TITLE? → MOVE? → COMBINE? → TRACK ERASE? → ALL ERASE? → current display

**3 Press [ENTER].**

The amount of recording time available after the track is erased is shown on the display.

**4 Press [ENTER].**

A message confirming your selection appears on the display. If you wish to cancel press [■] now.

**5 Press [ENTER].**

"UTOC Writing" appears on the display.
When this message disappears the track has been erased.

### Erasing a track while it is being played

This is useful to check that the right track is erased.

While the track to be erased is being played

① Press [EDIT] to select "TRACK ERASE?"
Each time the button is pressed: TRACK TITLE? → DIVIDE? → MOVE? → COMBINE? → TRACK ERASE? → current display

② Press [ENTER] three times.
"UTOC Writing" appears on the display.
When this message disappears the track has been erased.
Play stops.

**To cancel part way through**
Press [■].

## B Erasing an entire MD

This operation creates a blank disc.

Make sure the disc is record enabled.

While stopped

**1 Press [EDIT] to select "ALL ERASE?".**

Each time the button is pressed: TRACK TITLE? → DISC TITLE? → MOVE? → COMBINE? → TRACK ERASE? → ALL ERASE? → current display

**2 Press [ENTER].**

A message confirming your selection appears on the display. If you wish to cancel press [■] now.

**3 Press [ENTER].**

"UTOC Writing" appears on the display.
When this message disappears the MD has been erased.

**To cancel part way through**
Press [■].

# Error messages

| Display | Meaning | Action |
|---|---|---|
| **BLANK DISC** | The MD you inserted has nothing recorded on it. | Unless you intend to record something, insert a disc with tracks recorded on it. |
| **CANNOT COMBINE** | You have tried to combine tracks that cannot be combined. | None. This is a limitation of the system. |
| **CANNOT EDIT** | You tried to combine track 1. | Use this function on tracks numbered 2 or higher. |
| | You are trying to edit titles that have more than 101 letters. | You cannot edit the title on this unit. If possible, use the unit the title was originally created on to shorten the title first. |
| **UTOC FULL** | You have tried to divide a track on an MD that already has 254 tracks on it. | None. This is a limitation of the system. |
| | You have tried to record on an MD that already has 254 tracks on it. | Erase unneeded tracks or replace the MD. |
| | The title will not fit in UTOC. | Delete unnecessary titles or make the title shorter. |
| **DIGITAL IN UNLOCK** | You are trying to record from "DIGITAL 1" or "DIGITAL 2" but the optical cable is not connected correctly. | Check the cable connections. |
| | The unit you are trying to record from has not been turned on. | Turn the source unit on. |
| **DISC ERROR** | The MD is damaged. | Replace it. |
| **DISC FULL** | There is no space left on the disc. | Erase unneeded tracks or replace the MD. |
| **DISC PROTECTED** | The MD is write protected. | Close the write protect switch to enable recording and editing. |
| **EMERGENCY STOP** | A problem occured while recording. | Reinsert the MD and start again. |
| **NO DISC** | A disc has not been inserted. | Insert a disc. |
| **PLAYBACK DISC** | You tried to record on or edit a prerecorded disc. | Replace with a recordable disc. |
| **SCMS CANNOT COPY** | You are trying to make a copy of a recording from a digital source. | Use analog input to make the recording. |
| **TRACK PROTECTED** | The track is protected. | The track cannot be erased.<br>If possible, use the unit it was protected with to remove the protection.<br>(It is possible to erase all the tracks with this unit.) |
| **LOAD ERROR** | A problem occured while ejecting or loading the MD. | Press [▲ EJECT] and try again. |

# Troubleshooting guide

Before requesting service for this unit, check the chart below for a possible cause of the problem you are experiencing. Some simple checks or a minor adjustment on your part may eliminate the problem and restore proper operation.

If you are in doubt about some of the check points, or if the remedies indicated in the chart do not solve the problem, refer to the directory of Authorised Service Centers (enclosed with this unit) to locate a convenient service center, or consult your dealer for instructions.

**Reference pages indicated in black circles (for example: ⑩).**

| Problem | Possible cause | Action |
|---|---|---|
| **Cannot start play.** | Has an MD been inserted? | Insert an MD. ⑩ |
| | Has anything been recorded on the MD? | Insert an MD with tracks recorded on it. |
| **Cannot record.** | Are you using a prerecorded MD? | Replace with a recordable MD. Back cover |
| | Is the MD write protected? | Close the write protect switch. Back cover |
| | Is there a problem with the connections? | Check all the connections. ⑤ |
| | Is the recording level too low? | Turn the recording level up. ⑨ |
| **Cannot enter text.** | Have you entered the maximum number of letters for the MD (about 1700)? | Shorten the titles on the MD. ⑯-⑰ |
| **There is time remaining on the MD and less than 254 tracks have been recorded, but recording isn't possible.** | These phenomena occur from time to time and are due to the recording system used on MDs. | |
| **Recorded time and remaining time do not add up to the total time on the MD.** | | |

# Technical specifications

| | |
|---|---|
| **System** | Minidisc digital audio system |
| **Recording** | Magnetic field modulation direct overwrite |
| **Reading** | Non-contact optical system with Semiconductor laser (λ=780 nm) |
| **Sampling frequency** | 44.1 kHz |
| **Coding system** | ATRAC |
| **Channel** | 2 channel stereo |
| **Frequency response** | 10–20,000 Hz (± 0.3 dB) |
| **SN ratio (Play)** | 91 dB |
| **Dynamic range (Play)** | 90 dB |
| **Wow and flutter** | Below measurable limit |
| **Input** | |
| **Analog input (Level/Impedance)** | 500 mV/47 kΩ |
| **Digital input (OPTICAL IN 1, OPTICAL IN 2)** | |
| **Wavelength** | 660 nm |
| **Output** | |
| **Analog output (Level/Impedance)** | 2.0 V/600 Ω |

## ■GENERAL

| | |
|---|---|
| **Power supply** | AC 230–240 V/50 Hz |
| **Power consumption** | 12 W |
| **Dimensions (W×H×D)** | 196×105.8×243 mm |
| **Mass** | 1.8 kg |

**Note:**

Specifications are subject to change without notice.
Mass and dimensions are approximate.

# MDs

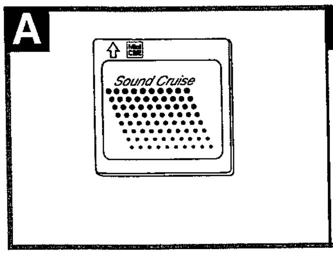
## Types of MDs

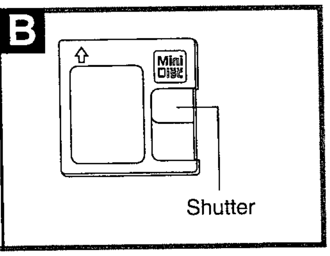
### Prerecorded MDs A

You cannot record onto these MDs.
These MDs are called optical discs.

### Recordable MDs B

Recording is magnetic.
These MDs are called optomagnetic discs.
Apart from the time limitations of the MD, up to 254 different tracks can be recorded on an MD.





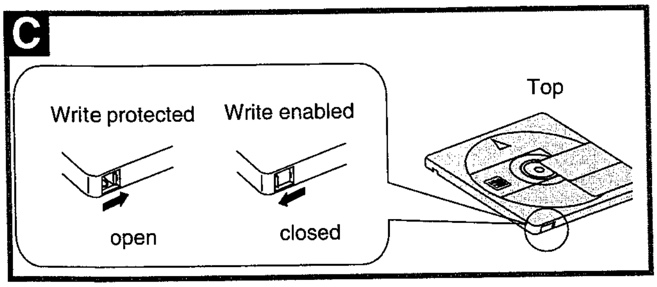
## Recording and editing MDs

### MDs are different to cassettes.

Recording starts from where the last recording ended so it is not necessary to look for a blank section.
When the disc becomes full, use the editing functions to erase tracks you don't want.

### Preventing erasure of MDs C

Move the switch to open the hole.
Close the hole when you want to record or edit the MD again.



### Limitations on digital recording

The serial copy management system (SCMS) prevents unlimited recording of digital material.
Recording digital sources such as CDs onto MDs through optical fiber connection allows you to make high standard recordings.
To protect the rights of the producer of the original material, it is impossible to make another digital recording of a recording.
Analog recordings are unlimited by this system.

Umweltfreundlich gedruckt auf chlorfreigebleichtem Papier.
Environment friendly printed on chlorine free bleached paper.

## Glossary

### Track mark

These are pieces of data on the MD that mark the boundaries of the tracks.
These marks are added automatically during recording or you can add them yourself.
Up to 254 track marks can be put on one MD.

### TOC

Table of contents.
This is an area on the MD set apart from the recording area that keeps records about the tracks on the MD.

### UTOC

User table of contents.
This is TOC information the user can edit.
This may include text information and results of editing operations.
The message "UTOC Writing" appears on the display whenever UTOC is being changed in some way.

### MARKING

This is the action of adding track marks.
This may be done automatically during recording or the user can add track marks to the place of their choice.

## Care

- Label the MD only as recommended.
  Do not stick labels on the shutter.
  Extra labels can catch on the mechanism and cause malfunctions. Ensure the MDs you use do not have left over adhesive on them.
- Do not open the shutter.
  If it opens accidentally, close it immediately.
  Do not touch the disc.

## Storage

### Keep your MDs away from:

Direct sunlight
Humid and dusty places
Direct heat from a heating device

# Maintenance

**To clean this unit, wipe with a soft, dry cloth.**
If the surfaces are extremely dirty, use a soft cloth dipped in a soap-and-water solution or a weak detergent solution.

- Never use alcohol, paint thinner or benzine to clean this unit.
- Before using chemically treated cloth, read the instructions that came with the cloth carefully.

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